

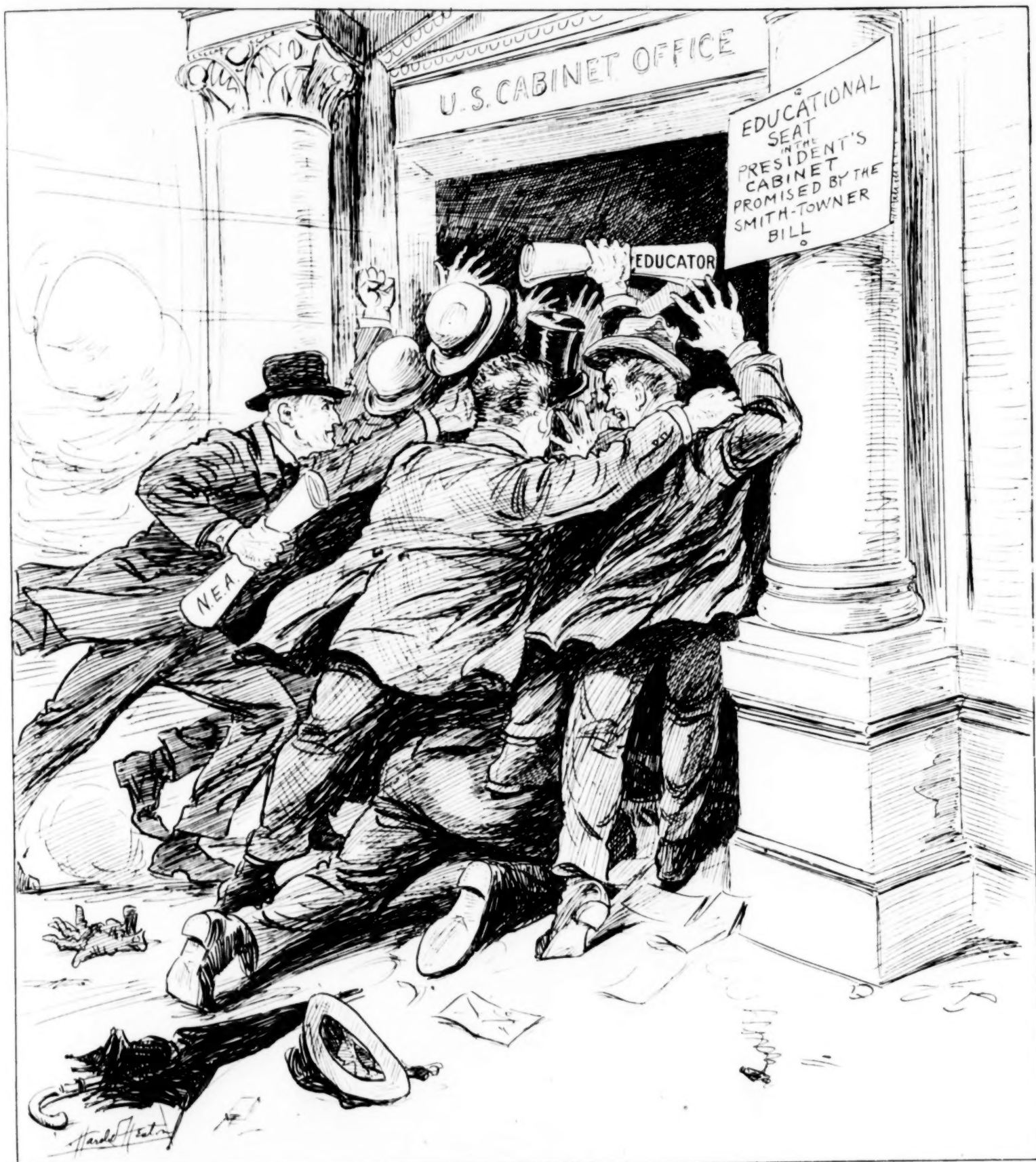
THE AMERICAN School Board Journal

Founded March 1891 by WILLIAM GEORGE BRUCE

Volume LXII, Number 2

FEBRUARY, 1921

Subscription, \$3.00 the Year



WILL THIS HAPPEN?

PLAY AT THE RURAL SCHOOLS

H. S. Curtis, Oberlin, Ohio

Introduction.

During the last two decades, the play movement has spread rapidly over the entire civilized world. At the time the Playground Association of America was organized in Washington in 1906, there were only twenty cities in the United States that were maintaining playgrounds. At the present time, there are more than six hundred which are carrying on some form of organized play, while fifteen states during the last four years have put a definite requirement of physical training and play into the program for all the children of the state.

In 1906, the playgrounds of the twenty cities were maintained for six weeks only, while there are now more than three hundred cities that are maintaining playgrounds for the entire year, and we are, now, furnishing two or three hundred times as many days of organized play as we were fifteen years ago. Everything seems to indicate that this movement is to go on until every child is reached.

The draft showed approximately one-third of our young men between the ages of 21 and 31 were unfitted for military service. This has been a tremendous stimulus to the development of play and physical training, for at least one-half of all these disabilities are disabilities no less in civil life than in the army.

There are several causes which are making the organizing of play for adolescents and adults more important than it has ever been before. The workers have very generally within the last decade attained the eight hour day, thus giving them two more hours of leisure, and prohibition has closed the saloons, making necessary a substitute.

The rural school has been much neglected in the past. While the cost per child in our city schools has usually been about forty dollars it seldom had been more than ten or fifteen dollars in the rural school, despite the fact that the per capita wealth of the country is no less than that of the city. The rural school has seldom had a ground adequate to play upon. While the yard of the city school may cost ten thousand dollars an acre, the ground for the country school may not cost more than one hundred dollars per acre a year. Still probably not more than 5 per cent of our rural schools have an acre of ground.

Area.

We have had no standard size for the grounds of our rural schools and most of them are inadequate, but in the State of North Dakota, there is a law that no rural school may hereafter be built on less than two acres of ground. The committee of the N. E. A. on minimum standards for rural schools recommended that three acres should be the minimum size, while the conference on Country Life, which met in Nashville in 1916, recommended that five acres should be the minimum ground for any country school.

It is almost impossible for a city school to get an adequate ground, and this ground is soon made ugly thru the grass wearing off. The country school can, on the other hand, secure the ground usually at a reasonable price, and there is no reason why it should be ugly, as the grass can be preserved in the most cases. There should be a law in every state forbidding the erection of a rural school on less than two acres of ground.

Surface.

Very few rural schools have a ground that is suitable to play upon for the reason that the ground has never been leveled and because there are often stones or other obstructions projecting

above the surface. All tennis courts and college athletic fields are made almost as level as a floor. No team of grown men or women are willing to play on any other kind of a surface, but many of the grounds of our rural schools are either hillsides or lie like the waves of the sea.

With two acres of ground, the grass will soon grow so high as to impede the play, unless it is kept down. There are two possible solutions of this situation. One is that this grass should be cut by a mowing machine at least twice during the spring and twice during the fall, and the other that a few sheep may be pastured on the school grounds. I do not know that this had ever been done, but the lawns of Central Park are largely kept down by sheep where they add much to the landscape and mow the lawn as evenly as a lawn mower. Many private lawns are also kept down in the same way. Sheep would be of much interest to the children and especially where the teacher lived near by, it would be an experiment well worth trying.

Fence.

It is desirable to have a fence about the grounds of a rural school in order to keep out the pigs and cattle and to make it a place by itself. If over this fence rambler roses, or honeysuckle, or clematis or scarlet runner or morning glory or any other flowering vine is planted, it will make the fence the most beautiful thing in the neighborhood, and the school much more attractive.

Trees.

At least two rows of trees should be planted around the outer edge of all school grounds for shade and beauty, but trees should never be planted in the midst of play areas. It would be desirable also in many cases if there might be a small park from one-tenth to one-fourth of an acre on the grounds of each rural school. This should be a solid clump of trees in area from seventy to one hundred feet square which would furnish shade during the warm hours of the day. This would be a harbor for birds and a place for the raising of wild flowers, the best location for a sand bin and such small apparatus as the school may need, a good place for the children to eat their dinners in the warm weather and for neighborhood picnics.

Athletics.

The age for athletics is the period of the elementary school. It is during this period that the interest in running, jumping and most athletic feats culminates. There should be a place on the ground of every school for the tests of the public school athletic league which means that there should be along the side of the school-ground somewhere a running track of one hundred yards with twenty-five, fifty and sixty yard distances also marked. There should be a jumping pit with a take off board set into the ground and the pit spaded up for a distance of fifteen to eighteen feet. There should be a board at the side of this pit with the distance marked upon it so that the children will know how far they are jumping. There should also be a place for the high jump with the standards and at least two horizontal bars, one at a height of five feet six inches and the other at the height of six feet six inches. These will furnish the opportunity for all children to try out the standard tests of the Boys' Athletic League which are as follows for boys:

First Test.

Pull up (chinning), 4 times.
Standing broad jump, 5 feet 9 inches.

60-yard dash, 8 3-5 seconds.

Second Test.

Pull up (chinning), 6 times.
Standing broad jump, 6 feet 6 inches.
60-yard dash, 8 seconds.
Or 100-yard dash, 14 seconds.

Third Test.

Pull up (chinning), 9 times.
Running high jump, 4 feet 4 inches.
220-yard run, 28 seconds.

The Athletic Badge Test for Girls.

First Test.

Potato race, 140 yards, 42 seconds.
Basketball throwing, 2 goals out of 6 turns.
Balancing 24 feet, 2 trial.

Second Test.

Potato race, 140 yards, 39 seconds.
Basketball throwing, 3 goals out of 6 trials.
Balancing (bean bag on head), 24 feet, 2 trials.

Equipment and Supplies.

It is not necessary for the rural school to have much equipment, but it is well worth while to have a sand bin for the small children, a few low swings, perhaps two or three seesaws, and a slide and giant stride also will be well worth while if there is plenty of money. None of this equipment, however, is strictly essential because children can swing or use seesaws or sand bins at home, while the school is the only place where many country children gather to play games. So far as equipment is placed in the school yard, it should always be at the side, and for the most part parallel with the fence, so that it may interfere with play spaces as little as possible.

If there is to be much play at the rural school, supplies that are necessary to this play must be furnished. At every rural school, at least two playground baseballs, two volley balls, one socker football, a tennis net and perhaps a set of croquet should be furnished every year.

Better Games.

The great difficulty in general is that the games which the children have sought to play have not been adapted to the rural school. In most cases, the boys are trying to play baseball, but there are not 5 per cent of our rural schools where there are enough boys more than 10 years of age to play baseball.

Probably the best game for the rural school is the game of volley ball. This is best, because it requires only two children on a side for a very good game, because it can be played every month of the year as mittens may be worn in the winter if it is cold. Volley ball also has a large corrective value in getting the head back and the shoulders back and the chest out, a correction which is greatly needed by rural children, so many of whom are round shouldered and hollow chested.

If the children are young at the rural school, and there are only two or three to play on each side, the ground should be about twenty or thirty feet in size with a net dividing it into two equal courts. The net should not be more than seven feet high.

Time for Play.

How is the rural school, with only one teacher and its very extensive program to find time for play? There are two ways that are more or less obvious—one is that the little children should be allowed to go out and play when they have finished their lessons. This is very desirable, but in general, so far as play is organized at the rural school, it must be organized

(Concluded on Page 121)

SOME TENTATIVE STANDARDS FOR JUNIOR HIGH SCHOOLS, WITH CRITICISMS

Inspector J. B. Edmonson, University of Michigan

Can standards be written at this time for junior high schools? It would appear desirable to have certain formal standards, but it is evident that the junior high school movement must pass thru a longer period of experimentation before standards can be written with the same degree of confidence as that displayed by the North Central Association in its dealings with high schools. The following report may serve to support this general conclusion, but it is hoped that it will not suggest the lack of a need for further efforts to write a set of standards.

At the 1919 meeting of the North Central Commission on Secondary Schools, a Committee on the Classification of Six Year, Senior and Junior High Schools was created.

The Committee was directed by the Commission on Secondary Schools to attempt to secure a complete classification of:

- all Junior High Schools operating as independent units;
- all Six Year High Schools operating as independent units; and
- all Three Year Senior High Schools operating as independent units.

To facilitate the work of the Committee, the Commission adopted certain definitions for the classification of schools. The definitions are as follows:

(a) "A Six Year High School is a school in which the entire work above the sixth grade is administered by a single staff of officers and teachers."

(b) "A Senior High School is a school in which the tenth, eleventh, and twelfth grades are segregated in a building (or portion of a building) by themselves, and are taught by a staff distinct from that which teaches in the grades below."

(c) "A Junior High School is a school in which the seventh, eighth, and ninth grades are segregated in a building (or portion of a building) by themselves, possess an organization of their own and that is distinct from the grades above and the grades below, and are taught by a separate corps of teachers."

The Committee carried on its work by the questionnaire method and secured statistics by states as to the number of high schools of the different types as determined by the school years included.

Table I. Number of Different Types of Schools in North Central States.

| | Senior H. S. | Five Yr. H. S. | Six Yr. H. S. | Junior H. S. |
|--------------------|--------------|----------------|---------------|--------------|
| Arizona | 1 | 1 | 2 | 3 |
| Colorado | 2 | 1 | 2 | 0 |
| Illinois | 1 | 0 | 3 | 14 |
| Indiana | 5 | 3 | 4 | 6 |
| Iowa | 7 | 2 | 2 | 19 |
| Kansas | 10 | 0 | 5 | 19 |
| Michigan | 8 | 7 | 19 | 22 |
| Minnesota | 8 | 2 | 8 | 16 |
| Missouri | 0 | 0 | 1 | 6 |
| Montana | 0 | 0 | 0 | 0 |
| Nebraska | 6 | 4 | 7 | 10 |
| New Mexico | 0 | 0 | 2 | 0 |
| North Dakota | 3 | 0 | 2 | 3 |
| Ohio | 11 | 2 | 15 | 36 |
| Oklahoma | 4 | 0 | 0 | 5 |
| South Dakota | 3 | 0 | 2 | 3 |
| Wisconsin | 8 | 0 | 3 | 8 |
| Wyoming | 0 | 0 | 1 | 0 |
| Totals | 77 | 22 | 78 | 170 |

The total number of schools reporting is 1,332. Of this number 1,155, or 86 per cent, are organized on the usual 8-4 plan. The other 14 per cent are, as is shown in the Table I, organized on the 6-6-3, the 6-6, or the 5-7 plan.

Table II.

| | Number. | Pct. |
|------------------------------|---------|------|
| Schools reporting | 1,332 | .. |
| Senior High Schools | 77 | 6 |
| Four Year High Schools | 1,155 | 86 |
| Five Year High Schools | 22 | 2 |
| Six Year High Schools | 78 | 6 |

It is evident from these statistics that the 8-4 school is the most common type of school and is the type to which the Association must give the first consideration in the development and enforcement of standards. It is, however, important to remember that a total of 14 per cent of the North Central Schools have departed from the conventional type and the indications are that this percentage will increase each year.

In this connection, the extent to which the schools of a particular state are departing from the usual 8-4 plan of organization might be of interest. The information selected is from Wisconsin and was secured by Inspector H. M. Goddard of the Committee. The report shows that of a total of 260 high schools in the State, 25 per cent have adopted some plan of organization which is a marked departure from the usual 8-4 plan. What is true of Wisconsin is true in other states.

What is a Junior High School?

In an effort to prepare a list of the Junior High Schools in North Central States, the committee formulated a set of tentative standards. It should be noted that these standards are only tentative. On the basis of these tentative standards a questionnaire was prepared and distributed to Junior High Schools. The definition of a Junior High School used by the committee was the one adopted by the Commission on Secondary Schools at the meeting held in March, 1919. As previously stated, this definition reads:

"A Junior High School is a school in which the seventh, eighth, and ninth grades are segregated in a building, or portion of a building, by themselves, possessing an organization and administration of their own that is distinct from the grades above and the grades below, and are taught by a separate corps of teachers."

Of the 170 schools reported by the North Central Inspectors, as coming within the definition of a Junior High School as adopted by the Commission, only 75 returned the questionnaires. Now of these 75, only 53 claimed to satisfy completely the definition. It may be that many of the 93 schools failing to reply did so because of a knowledge of their inability to satisfy the official definition. There are, however, more than 53 Junior High Schools in the North Central States, and the committee hopes to submit a more extensive list another year.

The definition of a Junior High School has been most vigorously attacked by certain school authorities. One former Junior High School Principal declares, "The definition of a Junior High School as adopted by the Commission on Secondary Schools, is wholly inadequate and does not at all meet present day conditions." Prof. F. T. Landsittel of Ohio State University declares, "I am inclined to question the advisability of narrowing the definition to exclude all other types except the three-year type. While it is true that the three-year school gives

promise of becoming eventually the standard school, it is not impossible that we may, after all, find either the two-year or the four-year type to be the best. I should be inclined to open up the possibility of recognition of either two or four-year schools, provided they would be acceptable on the point of segregation and distinctiveness of organization, administration, and teaching service."

Other criticisms have been filed with the committee, but the prevailing opinion would indicate that the definition is a valid one, therefore the committee believes that the present definition of a Junior High School should be allowed to stand, but believes that plans should be devised for the classification of other types of the modified 8-4 plan. Unless this is done, the Association may discourage experiments in the way of modified 8-4 plans of organization. Another year the committee plans to secure information from types of schools other than the three-year Junior High School type, and this is expected to satisfy the critics of the present definition.

Tentative Standards.

In an effort to move in the direction of preparing a list of approved Junior High Schools, the committee prepared a set of tentative standards covering such matters as:

- Preparation of Teachers,
- The Teaching Load,
- Program of Studies,
- Salary Schedule,
- Building and Equipment.

The tentative standards for the preparation of teachers in the Junior High School are as follows:

All teachers teaching one or more academic subjects must satisfy the following requirements:

- The minimum attainment of the majority of the new teachers of academic subjects shall be equivalent to the completion of a four-year course of study in a standard college or normal school.
- The minimum professional training of a new teacher of academic subjects shall be at least eleven semester hours in education. This should include special study of the subject matter and pedagogy of the subjects to be taught, including courses in Junior High School administration and methods. Such requirements shall not be construed as retroactive.
- The teachers not meeting A, shall be expected to complete at least one year of college work, including courses in Junior High School administration and methods, within a reasonable time following their appointment to Junior High School work.

The returns from 75 schools applying for recognition as Junior High Schools indicates very general ability and willingness to meet this standard. However, several leaders in the Junior high school field have voiced pointed criticisms of this standard. Among the criticisms, I wish to quote the following by President J. Stanley Brown of the Northern Illinois State Normal School, one of the members of the committee, who declares, "I question the preparation of teachers. I think that a reasonable requirement for teachers dealing with pupils, ten, eleven, twelve, thirteen or fourteen years of age might well be graduates from a State Normal School such as may be found in our Central States. I think there is reason to

believe that two years of training following high school graduation, with enough emphasis placed upon the art of teaching and some opportunity given to do acceptable directed or supervised study, would be a fairly satisfactory ideal."

Superintendent Stetson of Muskegon, Mich., declares, "It seems to me that the requirements under the head, 'Preparation of Teachers'—are entirely too indefinite. For example, under this, if I were hiring four new teachers of academic subjects, only three of them would need to have a preparation equivalent to the completion of a four-year course of study. Personally, I can see no reason for the word 'majority' of the new teachers. The second objection to that point is that, as any Junior high school teacher will tell you, the problems of teaching in the seventh grade are distinctly different from those in the ninth grade. If I were organizing a Junior high school here, where all of the teachers would be new teachers, I should dislike to feel that I should have a majority of them holding college degrees. The question of whether the majority of them should hold a college degree would depend entirely upon the number of pupils enrolled. If the larger group were seventh graders, I should not want the majority of the teachers with college preparation."

Prof. J. D. Eliff of the University of Missouri declares, "Why should we make any distinction in the preparation of teachers for Junior schools and the senior school? I see no reason for doing so, and a uniform requirement for both groups will be much more easily administered."

The Teaching Load.

Of the 53 Junior High Schools satisfying the definition, 43 have required the A. B. of a majority of new teachers and current practice would appear to indorse the tentative standard as a desirable one. However, it may be desirable to remove the indefiniteness of that part of the present tentative and the elimination of that part of the requirement suggesting that only a majority of the new teachers shall possess a college degree. It might be preferable to indicate a lower standard of qualifications than a college degree to which all teachers should measure up. The committee does not plan a radical revision of this standard this year, but expects that a revision will come later as the result of further inquiry concerning the actual situation in standard Junior high schools.

Under the heading, "Teaching Load," the committee has provided the following:

A. The number of daily periods of classroom instruction given by any teacher should not exceed six.

B. The average length of a recitation period should be forty minutes, exclusive of all time used in the changing of classes or teachers.

C. For schools having a plan of supervised study with class periods of fifty minutes or greater, not more than five classes per day should be assigned to any teacher.

D. No school whose records show an excessive number of pupils per teacher based on average attendance, shall be accredited. The committee suggests 25 as a maximum.

All of these requirements appeared to be acceptable to the Junior High Schools, except the one relating to the number of pupils per teacher. It appears to many that 25 is too low a maximum on account of the great cost of supplying sufficient teachers, and 30 or 35 is suggested by a considerable number of school principals.

In commenting on this tentative standard, Mr. C. L. Spain, deputy superintendent of Detroit schools, says, "Under part 3, 'Teaching Load,' the committee suggests 25 as a class maximum. This seems to be altogether too low. It seems strange that if our schools are doing

what they claim they are, that is: giving pupils more self-reliance and more power of self-direction as they progress thru the grades, that we should find it necessary to segregate the seventh, eighth, and ninth grade classes into classes of 25 when we are successfully handling classes of 35 to 45 in the lower grades.

"I see no reason why the intermediate or Junior high schools should not handle pupils in classes of at least 30, and preferably 35, and I do not believe that we are justified in reducing this standard as low as 25. I might say that this is the opinion of others in the group here who are making some study of these matters."

Defining Terms and Expressions.

Many questions were raised by school officials concerning the meaning of terms and expressions used in defining the content and administration of the program of studies. Some of the typical questions were:

What is meant by "promotion by subject"?

What is meant by "supervised study"?

What is meant by studies "richer in content"?

The returns from the Junior high schools indicate a general belief that a marked revision has already taken place in the program of studies. However, it is evident to the committee that there is need of careful definition of many terms and a demand for carefully prepared statements issued concerning the aim, content, and methods to follow in the preparation of units in the various Junior high school subjects.

Some of the difficulties in the standards are pointed out by Assistant Superintendent G. L. McCullough of Jackson, Mich., who declares, "How to define the units in the program of studies in a manner greater in scope, I do not know. We certainly have not endeavored to cover more ground or teach the subjects more intensively than in the traditional elementary schools. In our schools we have sought to reduce the quantity both as to time and matter. We offer a wider range of subjects than the traditional elementary schools do, but within the subject itself, the process has been one of compression or elimination, rather than of expansion. I take it, 'richer in content' refers to that widespread movement during the last decade or two to make the subject matter of instruction in the grammar grades more vital, and more closely related to child-life interests. To this end, the whole subject matter of history, civics, geography, arithmetic, grammar, spelling, hygiene, literature, industrial arts, has been recast and reorganized. With this movement we are wholly in accord. Even at that, there is a wide diversion among educational authorities as to what the 'richer in content of these subjects' should be. In education, as elsewhere, we have our radicals, not to say Bolsheviks, as well as the most confirmed and conservative."

In commenting upon the standards, Prof. C. H. Judd of the University of Chicago says, "It is my judgment that most high schools which are trying to organize this movement, fail to understand that it is essential to the reorganization of the curriculum; to be sure, it is also a reorganization of the mode of handling the curriculum, but what I think is needed in the way of advice is the definition of some of the changes that ought to be made in mathematics, English, etc. My judgment would be, therefore, that the committee ought to take a standard relating to the curriculum and enlarge it so that it would become a major part of the report, giving us definite knowledge of what is being done in each of the subjects in the curriculum. At the same time, as I suggested above, it seems to me very desirable that the committee should

give support to vigorous principles in persuading their boards of education of a necessity of a very radical change in the program."

Too Early for Standardization.

One of the standards arousing the greatest interest on the part of Junior high school principals, relates to salary schedule. In fact, this standard was the most favored of all. The standard reads:

"No school shall be accredited whose salary schedule does not insure the attracting and retaining in the Junior high school of teachers equal in teaching ability to those selected for Senior high school teaching."

This standard was introduced in order to prevent the development of the practice of using the Junior high school as a training school for teachers intended for Senior high school work. The returns from the Junior high schools indicate that a large majority satisfy the standard at the present time, and it is the consensus of opinion that it is highly desirable for all schools to attempt to satisfy this standard. The only criticism offered relates to the revision of the standard so as to demand more attractive salaries in Junior high schools rather than salaries equal in attractiveness to those paid in Senior high schools. It has also been suggested that the committee might well afford to put less emphasis upon the preparation of teachers and more emphasis upon the salaries paid to teachers, the suggestion being that high salaries will insure the attracting and retaining in Junior high schools of teachers equal in preparation and ability to those in the Senior high schools.

The standard relating to the Junior high school building and equipment reads: "The location and construction of the building, the lighting, heating, and ventilation of the rooms, the nature of the lavatories, corridors, closets, water supply, school furniture, apparatus, and methods of cleaning shall be such as to insure hygienic conditions for both pupils and teachers. The buildings should contain adequate laboratory, gymnasium, auditorium and library facilities."

That buildings in which Junior high schools are housed are relatively new is indicated by the fact that 37 of the 53 have been erected since 1910.

One general conclusion reached by the committee was that the junior high school movement is too new to make standardization possible or desirable. The newness of the movement is emphasized by the fact that only 53 schools of the many so-called Junior high schools were eligible under the official definition adopted by the North Central Association. It is further emphasized by the fact that of the 53 eligible under this definition only four were organized prior to 1914. While newness makes desirable a very careful study of possible standards, it also makes imperative a very cautious procedure in the adoption of standards. Unless this caution is used there is grave danger of hindering the movement. Frank criticism, a spirit of enthusiastic experimentation and co-operation between students of the Junior high school problems are the requisites of real progress in the direction of framing a set of standards.

Dr. A. S. Downing told the Governor of New York that the Smith-Towner bill was neither opportune or desirable. Why not stage a debate between Dr. Downing and Dr. Strayer and let Dr. Ayres do the referee act? Let's see who can hit hardest.

The citizen who gets himself elected to the school board on a reform issue usually learns that somebody forgot to tell him just how reform theories are put into practice.



Business Management for School Boards

III—Janitor Work and Building Maintenance

Harry A. Ingell, Registrar, La Salle Extension University, Grand Rapids, Mich.



The development of the social center-community activities and night schools has forced the employment of a higher grade of school janitor than formerly. Added to his ability to sweep and clean, ring the school bell, shovel coal and watch the steam gauge, the janitor now must needs be a sort of stage manager, know how to run a moving picture machine, and assist at the variety of social functions which upper class students, teachers and school patrons' clubs are constantly indulging in.

In addition to knowing something about carpenter work, pipe fitting and electric wiring, he should be given instruction in scientific ventilation and heating of buildings, in elementary chemistry, hygiene; how to read scientific instruments for recording the temperature, humidity and other atmospheric conditions in the rooms.

A sample janitor's employment card is given below, using a bristol board card size 5"x8": printed two sides:

Preventing Fire and Accidents.

All janitors should be furnished with sets of tools planned with a view of the needs of each individual building rather than on a basis of a uniform set for each school. A typewritten list of all tools should be pasted either on the top of the tool chest or on the end of the tool bench and the tools should be inspected and accounted for regularly to the building inspector.

All fire hose and fire extinguishers should be regularly inspected and the latter charged as necessary, preferably by some man from the local fire department.

As the question of accidents and fire prevention is of the highest importance the following three cards are suggested:

1. Use the sprinkler report postal, requiring it to be mailed each Saturday noon by the janitor of each school building having sprinkler equipment, to the business manager:

| SPRINKLER EQUIPMENT REPORT | |
|---|-----------------|
| Date and hour of inspection | |
| Valve in City connection closed or open, which? | |
| Dry pipe valve set (date and hour) | |
| Dry pipe valve tripped (date and hour) | |
| Cause of tripping | |
| Valve reset, (date and hour) | |
| Water pressure | |
| Air pressure | |
| Alarm tested and found operative (yes or no) | |
| If inoperative, state reasons | |
| Repaired (date and hour) | |
| By | School Engineer |
| NOTE—Air pressure should never be permitted to drop below 20 pounds nor to exceed 40 pounds pressure on gauge | |

FORM FOR SPRINKLER REPORT.

2. Red bristol board cards size 5½"x7½" bearing the fire department telephone number should be placed in each schoolhouse hall and near each school telephone—

IN CASE OF FIRE CALL

Number.....

These cards should be placed where they can be readily seen from the telephone. Every janitors should know the location of the nearest fire alarm box. In case of fire, the janitor should make an effort to notify the fire department as soon as possible, both by telephone and by pulling the fire alarm box, even though the fire does not appear to be serious. After sending in the alarm make every effort to extinguish the blaze. Janitors who do not know how to use the fire extinguisher should ask the captain of the nearest fire company at once.

A yellow bristol board card size 8½"x11" should be conspicuously posted in all shops, boiler and engine rooms and manual training rooms, reading as follows:

ALL PERSONS

Employed about these premises are requested to take every precaution possible against

ACCIDENTS.

In this connection the following rules are recommended in the manual training shops:

1. Pupils who belong to shop classes shall be in the shop only in their regular periods, except by special permission.

2. Obtain the consent of instructor before starting or operating any machine.

3. Guards must never be removed from machines except by permission from the instructor, and they must be replaced before the machine is started.

4. Before starting a machine be sure it is properly oiled and in good running condition.

5. Whenever possible turn a machine over by hand to be sure everything is free before throwing on power.

6. When operating a machine give the work your undivided attention; it may save spoiling a job if not more serious damage.

7. When it can be avoided never stand with face or body in line with swiftly revolving parts.

8. When working do not wear loose fitting clothing or jewelry on the hands. Take off your coat and roll up your sleeves.

9. When in doubt concerning your work or the operation of any machine ask the instructor. That's what he is here for.

10. Be thoughtful and deliberate. Think before hand as afterthoughts won't rectify damage to work or tools.

11. Keep away from moving machinery you are not operating.

12. Stop machines before making any adjustments.

The principal and teachers should also know how to use the fire extinguishers.

A study should be made of each school building, in an effort to reduce the fire hazard as much as possible. All rubbish, ashes and all waste material should be removed from the building. All exit doors should always be unlocked and in working order during school hours. If the building is equipped with a sprinkler system be sure that it is always in working order. All oily waste, sweeping compound or material either of an inflammable nature or likely to ignite from instantaneous combustion should be kept, if necessary around the school building at all, either in metal receptacles or under cover outside the building.

In this connection, the danger of using oil for floor cleaning is obvious. Opinion is divided as to the benefits derived from its use; there is no doubt that it constitutes a damage to the

| BOARD OF EDUCATION | |
|---|---|
| TO THE BUSINESS MANAGER | Date..... |
| I herewith make application for employment as..... under the Board of Education based upon the accuracy of the following statement. If accepted I agree to devote my entire time during business hours to such duties as may be assigned to me, and to rigidly regard and maintain all the rules and regulations of the Board so far as they concern my position. (Applications more than six months old will not be considered.) | |
| Signed..... | Residence..... |
| Do you own your house or rent? | ..... |
| Nearest phone where you can be reached..... | ..... |
| Education..... | Age..... Married..... Children..... |
| Nationality..... | How long have you lived here? |
| Is your health good? | Do you use tobacco?..... Liquors?..... Foreign languages..... |
| Have you worked at any of the following trades: | |
| Carpenter..... How long?..... | Plumber..... How long?..... |
| Painter..... | Steamfitter..... |
| Mason..... | Tinner..... |
| Electrician..... | Cabinetmaker..... |

OBVERSE OF JANITOR'S EMPLOYMENT CARD.

| | |
|---|-------|
| State any other kind of work you have done..... | ..... |
| Have you worked as janitor or caretaker?..... where..... | ..... |
| Have you ever handled a steam boiler?..... where..... when..... how long..... | ..... |
| Have you ever run an engine?..... where..... when..... how long..... | ..... |
| What knowledge have you of the cleaning of buildings?..... | ..... |
| Have you ever been discharged from a position?..... State the circumstances..... | ..... |
| Name firm by whom you were last employed..... weekly wages \$..... | ..... |
| Reason for leaving..... | ..... |
| References (give at least three, write plainly, the writing of references is preferable): | ..... |
| Name..... Address..... Occupation..... Phone..... | ..... |
| Name..... Address..... Occupation..... Phone..... | ..... |
| Name..... Address..... Occupation..... Phone..... | ..... |
| Remarks..... | ..... |

REVERSE OF JANITOR'S EMPLOYMENT CARD.

clothing, shoes and rubbers of students and teachers, and its storage and use around a school building brings to the school building a fire risk which is a constant menace.

Any tendency toward cleaner school buildings which the use of floor oil affords can be better taken care of by the installation of vacuum cleaner plants. The writer believes strongly in the efficiency of the floor brush, used in connection with properly surfaced playgrounds as a dust and dirt reducer.

Janitor Work—General Orders—Summer Schedule.

CLEANING BUILDING—Be sure that your basement is thoroughly cleaned and whitewashed until August. The regular cleaning as soon as possible. You will not be required to do any cleaning of the building above the of the building in August will be on the basis of two days per schoolroom. Specification for whitewash is given on request.

BOILERS—On or before..... have your boiler in suitable condition to be inspected by the boiler inspector, who will call at your building about that time. Do not drain the boiler before that time. Instructions for getting boilers ready are as follows:

Before emptying boiler burn all rubbish in your building and cool the boiler.

In fire-box or horizontal tubular boilers:—Take out handhole and manhole plates and wash-out plugs, and thoroughly clean the inside of the boiler with the hose. Be sure that you get all mud out of the shell, off the crown sheet, away from around the stay bolts and throat sheets and out of leg.

In the case of sectional boilers, take out wash-out plugs and header plugs and *thoroughly* wash inside of boiler; see that the equalizers are *thoroughly* cleaned out.

In all boilers see that all soot and other dirt is taken out and that the *grates* are removed and the ash and fire box thoroughly cleaned. Leave boilers empty until after inspection and repair; during the summer burn a few papers occasionally to keep the boiler dry and free from rust.

BLACKBOARDS—Be sure that during the last week before vacation all of the painted blackboards in your building are carefully and thoroughly washed preparatory to being painted. *Be sure this is done.*

INK WELLS—These should be taken out of desks and put in water and left to soak until clean.

SCHOOL FLAGS—When school closes, take the flag down and carefully store it away until the opening of school in September. Report to the Business Manager when your flag needs repairing or renewing.

PIANOS—Before leaving your building see that all pianos are closed and covered. If additional covers are required, notify the office at once.

Whitewashing.

Half a bushel of unslaked lime, slaked with warm water. Cover it during the process to keep the steam. Strain the liquid through a fine sieve or strainer. Add a peck of salt previously well dissolved in warm water, three pounds of ground rice boiled to a thin paste, and stir in boiling hot a half pound of powdered Spanish whiting (plaster of paris) and a pound of glue which has been previously dissolved over a slow fire, and add five gallons of hot water to the mixture. Stir well and let it stand for a few days. Cover from dirt. It should be put on hot. One pint of the mixture will cover one square yard if properly applied. Small brushes are best. There is nothing that compares with it for outside or inside work, and it retains its brilliancy for many years. Coloring may be put into it and made of any shade, Spanish brown, yellow, or Carmen clay. To it may be added two pints of carbolic acid, which will make it a disinfectant.

Interior Decoration.

Ask two or three reliable painters for a price per yard on one, two or three-coat work and give them the privilege of using any one of four or five leading makes of flat paint. When

they are ready to begin work, go with them to the building and instruct them where they are to put on one coat, two coats or three coats. The main thing in work of this kind is to get reliable workmen. Have the paint delivered to the buildings in the original package, so you can see what they are using, and require them to put it on according to the manufacturer's instructions.

There is always more or less cleaning of the old walls, filling up cracks, etc., to be done before the wall is in shape to paint. Allow extra for this work, which is to be figured by the hour at an agreed rate. Check the number of coats put on by marking the wall so you can tell whether it has been covered.

Maintenance and Care of Lawns.

As the demand grows for landscape gardening in connection with public buildings, the following formula for renewing and accelerating the grass for school lawns will no doubt be interesting: to be applied at the rate of 25 pounds to every 1,000 square feet of lawn:

Bone meal 750 lbs.

Sheep fertilizer 1,500 lbs.

Air slacked or hydrated lime.. 750 lbs.

Use the following mixture of grass seeds:

Kentucky blue grass seed... 40 lbs.

Red Top clover seed, unhulled 40 lbs.

White clover seed..... 5 lbs.

Playgrounds should be leveled to drain properly, surfaced with fine screened bank gravel, and topped with an inch or two of clean white sand.

Disposal of Ashes.

The most satisfactory disposition of this form of waste has been found to be the letting of an annual contract at a set price per cubic yard to some reliable teamster, who is to carry them to the city dump. Where the state laws do not prohibit the Board of Education from contract work it might be possible in some instances for the board to realize an income from the use of ashes for street grade raising, lot filling, etc. The ashes from a large school system amount to several hundred loads per year. On occasion, commercial plants have used their boiler room ashes in the manufacture of bricks.

Technique Outside of Teaching Experience

Ralph C. Jenkins, A. M., Supt. of Schools, Terryville, Conn.

I was looking over some letters written while I was a senior in college. I came across this statement:

"I hope some day to be a school superintendent. How much better it would have been if, instead of putting in that year between high school and college as a cub reporter, I had kept a rural school. Then I should have had some real technique which would help me in the profession I hope to take up."

That was the judgment of some years ago. Today my hopes are realized and I am a superintendent of schools.

In weighing the year of experience in the ungraded school against the year in the newspaper office, two things should be considered, the useful skills gained in either occupation and the valuable information acquired. It seems to me that I got a lot of both while I was scrubbing for news.

As a cub reporter I learned to use the typewriter. Probably I should have learned that in high school, but unfortunately that was not given in the academic course. That skill has been of immense value to me in school work. When I see a superintendent who cannot run a typewriter, or who pecks at it laboriously with his index finger, I feel that he is handicapped. Perhaps he has a full time stenographer or two. Yet I thank fortune that the ability to use the typewriter was forced upon me by the editor's insistent demands for "more copy."

Skill in Recording.

I acquired in that office some skill in getting what I wanted to say down on paper in a reasonably effective way. I remember particularly well the first long assignment the editor gave me. I plugged away at it and handed him the result, a story of several pages length. He read it through, blue penciling as he went along. It came back to me looking like a high school sophomore's book review on which a conscientious teacher has tried to do her duty.

My pride was bruised. The editor had written, "Try it again,—boil it down,—boil it down again. Write so I'll know what it's all about." That editor put me through a pretty continuous course of boiling down and boiling down again until I formed the extremely useful habit of extracting most of the water before trying it on him. More than once as a superintendent of schools I have turned that skill to good account.

I picked up many a valuable bit of information while covering my assignments. I was knocked against lots of different kinds of people. The relatives of the deceased whom I interviewed before the funeral to get the obituary, taught me something of the nervous and despondent state of mind of the classroom teacher who has just said farewell to the last vestige of grip she may ever have had on her pupils.

The irate subscriber who bristled into the office to complain to the editor and stop his paper because the cub reporter insisted in picking up vicious lies about him, gave me information about how later to meet the irate parent who came to my office to see why the Latin teacher had been "rubbing it into" his boy. The editor would first listen to the story carefully and then say, "Now tell me that again. I didn't just understand." He did that, I learned, partly to stave for time, and partly to get the subscriber thoroly unwound.

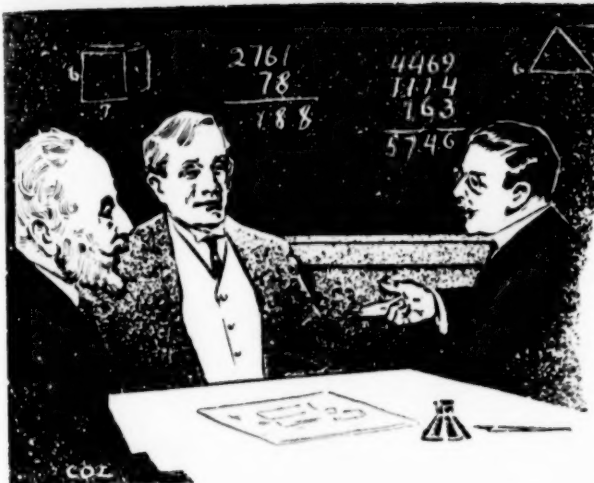
After the second recital, the editor would say, "Now, what do you want me to do about this?" The subscriber wouldn't have the least idea. Then the editor would suggest to him the reasonable thing to do and the subscriber would go ahead and do it. I have found this identical formula extremely useful in an interview with some particularly "hot" patron of the schools.

Several vivid experiences came to me in that newspaper office that I have since been able to cash in as part payment for my salary checks. Perhaps the most valuable was the experience that taught me what is meant by "long hours." I have found that school superintendents are not on the eight-hour schedule with time and a half or double pay for overtime. Before I became the editor's understudy, I thought 5 o'clock was quitting time and that the big fellows didn't stay that long, but went in at 9 and came out at 3. The editor set me right. I noticed that he stuck to his desk the longest of any man in the office. I learned that because a man reaches a place where he doesn't have to punch the clock or slink by the boss on the way in, because he is the boss himself, that doesn't give him any license to keep politicians' hours.

A Lesson in Getting Fired.

I got fired from that job, and that was the most valuable experience of all. I had been a cub reporter for seventy-two hours and had made

(Concluded on Page 125)



The Superintendent's Reveille

ICHABOD

I am superintendent in a city of less than 10,000 people. Living in a progressive city, I attempt to make myself believe that I am likewise progressive. I am a regular reader of the School Board Journal, and as a further proof that I move in a progressive atmosphere I have only to cite the fact that each member of my board of education receives the school board Journal (gift from the School District) and I know that the majority of them read it as regularly as they attend church on Sunday. I suppose that my relationship with this school board and this community is analogous to that which nine-tenths of the superintendents the country over bear to their school board and the community which they serve.

When I read an article or an item in the School Board Journal, which does not particularly reflect credit on the judgment of the member of the teaching profession who submitted it to the magazine, I immediately speculate what the reaction of this is on my school board member when he reads the same article or the same item. I refer particularly to items regarding salary schedules and salary increases of members of the teaching profession.

I read that Jason, Neb., a town of 25,000 people, had established a salary schedule with a \$1,000 minimum for the grades. Another item said that Jonathan Wise had been re-elected superintendent at Solomon, Ohio, a city of 30,000, at a salary of \$3,200. Now it has never been my privilege to know Jonathan Wise or to be very familiar with the conditions under which he has been working in Solomon, Ohio, but I should judge that he is one of those cringing individuals who has been afraid to say just who was the possessor of his own soul. For him the sun has suddenly broke thru the dark clouds and his board has raised him to the princely salary of \$3,200 per year. He immediately breaks into print to encourage some other faint-hearted "sister" to stick long enough that he too may like the prodigal son receive his share of the fatted calf.

School Board Would Like to Know.

When I read news of this nature I keep wondering if by any chance my board member has missed these particular items. Secretly I hope that he has, but as a usual thing he has not. Then at the next board meeting when the question of teachers' salaries is under discussion I am asked to explain why it is that we, a city of less than 10,000, must pay a minimum of \$1,200 per year with scarcely a teacher receiving that minimum while this city in our neighboring state, a city which has many times our wealth and a city with a much lower school tax rate, is paying to each of its teachers two or three hundred dollars less annually than are we. If my board members were not such perfect gentlemen, so thoughtful, and so careful not to offend or to injure my feelings in any way they

would go one step farther and want to know why they were paying me a \$1,000 or \$1,500 more than my long suffering fraternal brother across the state line.

There are too many superintendents who, like Lazarus, are content to gather the crumbs that fall from the tables of our rich communities and even show a greater degree of satisfaction than did this selfsame Lazarus. As a class we are not aggressive enough. Not only do we lack the courage to take a stand in matters that must mean much to the welfare of our country but most of us are woefully lacking in the practical aspects of the thing we have studied most. We spend years in studying psychology and yet forget to apply it when it comes to our public.

We are poor advertisers. We fail to recognize all the advertising agencies in our community and failing to recognize these agencies, of course we fail to use them in fighting for better schools and higher salaries both for the teacher and the executive force.

From my last year's high school graduating class several of the girls who completed the work in our commercial department have gone into clerical work. One of these girls has assumed the job of taking care of my office work and receives \$75 per month. Another one of these girls receives \$122 per month, the others receive something between these figures. A little arithmetical calculation makes a salary range of \$900 to \$1,464 for girls who a few weeks ago sat at the feet of our female Gamaliels who preside over the destinies of our schoolrooms.

Under conditions of this kind why should I approach my board of education with fear and trepidation with a salary schedule calling for a \$1,200 minimum? If our teachers can prepare these girls, none of whom are out of their teens, to go into positions of this kind and paying these salaries, certainly they are entitled to more consideration than is usually accorded to them. I have no apologies to make except an apology for any board of education which allows the condition of an underpaid teacher to continue.

Mingling with Business Men.

In my city my closest friends, by chance, happen to belong to the professional and manufacturing classes. I happen to know that a dentist friend last year cleared \$7,000. A doctor friend is making a thousand dollars per month. I sit at a weekly luncheon with a number of these men. We had our noonday luncheon today. Most of us ride to the hotel from our places of business in automobiles which we park in front of the hotel.

I was interested in these cars as I inspected them on coming from the luncheon. The first was a big, powerful Mercer, then came a Studebaker of the big six variety, a Cadillac sedan, a Cole Eight, two or three Dodges, a Buick or

two, a Dort, a Mitchell, and last of all a poor, pitiful Ford, which seemed to be in rather fast company, for it appeared like a very small duck looking for shore in a very big pool of water. Its nose never looked shorter than it did today. It lacked the patrician aquiline features of its more pretentious brothers.

That Ford belonged in fee simple (my lawyer friend might object to the use of this term) to the superintendent of the city schools. Lest my reader misconstrue I must hasten to explain that since I never inherited a rich legacy I am like the great majority in that I am ready to make the assertion that Henry Ford has not lived in vain.

My lawyer friend tries to salve my feelings by telling me that my Ford runs like his six cylinder Studebaker—but lawyers always did have a way of putting a sugar coat on a pill which otherwise might be bitter. The fact remains, however, that I do break bread with these gentlemen every week, and being a semi-philanthropic organization we are taxed quite heavily for community welfare purposes.

I wonder sometimes, after a special assessment has been made, if even my Ford is not a luxury. My wife's health, however, requires it and so it continues as the third member of the family. My case is typical of the life of a superintendent in a city of this size. My unseen friend who is the superintendent of Solomon, Ohio, must have these expenses larger in proportion to the size of his city.

Then why should he be so elated to have his salary raised to \$3,200—for nine and one-half months of school—paid in ten installments. I know in my city two bookkeepers who each receive \$5,000 annually, but this is business, and my friend from Solomon, Ohio, has only to do with education.

Schoolroom Tin Lizzies.

We need better educators at the head of our city school systems, but we need better business men as well—men who know when, and where, and how to speak the truth. Sometimes these truths need to be spoken very tactfully and sometimes they need to be spoken bluntly.

My fellow teachers in this school system must judge whether or not I have been a success educationally. I claim I have been a success in the school game from the business side. I say this without any conceit or exaggerated ego. I early recognized as an axiomatic truth that 75 per cent of the assets of any school district consisted of the corps of teachers which it possessed. High salaries and good teachers go hand in hand. When one pays \$2,000 he gets a Buick. When he pays \$600 he gets a "Tin Lizzie." I have worked to eliminate the "Tin Lizzies" from the schoolroom.

I came to this city during the war. It is a city which is made up very largely of old inhabitants, which means conservatism. I came

for a salary less than \$2,500 per year. I found no salary schedule for teachers. The board was paying only as much as it was compelled to pay. A number of the grade teachers were receiving \$500 and less annually. High school teachers were receiving from \$650 to \$800 annually.

Here was my opportunity. I began a thoro and persistent campaign. I was ably assisted in this by one of our supervisors who understood local conditions. We used every agency available and every opportunity to advertise the schools. I am not a good public speaker, but a good many opportunities came to me to speak to various clubs and organizations. I never refused one of these invitations and I always spoke on school questions seeking to build up a pride in the local schools.

In these talks I never failed to emphasize that the school district obtains just the kind of teaching material it pays for. In my high school and college days I had written occasionally for the local papers and I now made friends with the local newspaper men, and used the columns of the newspaper for my propaganda. School exhibits and athletics were made to play their part.

Method in Madness.

Nothing was done haphazardly. There was a well worked out method in my madness—sufficiently simple to carry over to the people. Pretty soon some people began to talk higher salaries for teachers. The small element who had always believed in higher salaries took on new life and added their voice to forwarding the movement. The war made its contribution. The board members were thoughtful citizens and progressive. They have gone ahead as rapidly as the community will permit. Education is being sold to this community as never before.

The time came when we thought we needed better and more buildings. After extended conferences with our architect it was my painful duty to announce to the board that we needed a sum in excess of \$400,000 for this work. There was consternation at that board meeting, and the superintendent of schools played the role of "the artful dodger."

Most of the board members said it could not be done. They harked back to a few years previous when a bond issue for \$80,000 or \$85,000 was submitted to the people three times before it finally carried. These dissenting members were finally won over. A campaign was put on; the bigness of the thing was emphasized; the voter was allowed to contemplate its grandeur in somewhat the same fashion as a traveler views the wonders of the Rockies, and it had much the same effect. The bond issue passed by a big margin where a smaller issue might have failed. The people were becoming alive, educationally.

But what about salaries? They have gone up as people came to appreciate their schools. We now have a salary schedule ranging from \$1,200 to \$2,200. One supervisor has in the last three years had her salary increased by 200 per cent.

Enlisting Public Support.

Increased taxes? Yes—but that was part of the campaign. People would rather pay a school tax than any other tax. They want their children to have the best. What about the superintendent's salary? It has followed in a leisurely fashion after the raises in the salaries of teachers. At present he receives a salary considerably more than \$4,000 per year—hence the Ford.

But consider the case impersonally. His very salary has given rise to a serious problem. What is to become of him when he leaves this city? He is comparatively a young man. He came to this city fresh from the university where he

went to prepare for just such a job as he holds. He is ambitious and wants to advance in his chosen field. But neighboring cities with many times our population pay very little more than he is receiving.

When he leaves this city where is he to go? Unless conditions change he must either actually face a loss in salary, or make a big jump in the size of the city to which he may go. In his own mind he is firmly convinced that he can hold down a job in a city many times the size of this one. But he may have hard work in convincing a board of education of that fact—therefore the perplexing situation.

The period thru which we are passing is a most favorable one in which to obtain more money for our schools, but many superintendents have not taken sufficient advantage of it. It has been most gratifying to see some of our normal school executives assume the leadership in this movement. Public-schoolmen should feel, and do feel, deeply indebted to them, but many of these same public-schoolmen have failed to take the cue. The wide difference in salary schedules in cities of the same class show how much more effective some superintendents have been than have others in this matter.

If salaries are not where they should be, the big responsibility rests upon the superintendents. Too many of them have been pleased to

advertise such increases as were made at Jason, Neb., or Solomon, Ohio. Such increases would probably have come without any work on the part of the superintendent. Such advertising tends to give the cramps to many of our boards of education.

We may have been able to lead a group of female teachers in the scholastic side of the game, but when it comes to a man's game, we have been content to simply follow. We are not selling our wares. We need to cultivate more spine.

The reveille is being sounded for the superintendents of schools. Its clarion notes may be heard from the Atlantic to the Pacific. It sounds the awakening of a new dawn—a new day for the public school. It is a challenge to us to shake off the sleep of tradition and inaction. It calls us to a new world and to new deeds, where newer and higher standards must prevail. It calls for a better type of instruction. It calls for teachers, the poorest of which equal our best at present. It calls for more equipment, higher salaries, and greater financial support to carry out our program. Our case as superintendents must rest on the alertness shown in reorganizing these new situations and the astuteness we show in handling them. The reveille has been blown. Before taps have been sounded we must by our work render an account of stewardship.

Teachers' Salaries in North Dakota Classified High Schools

P. K. Cesander, Superintendent of Schools, Starkweather, N. D.

In the fall of 1919 the Teachers' Welfare Committee of the North Dakota State Teachers' Association published and distributed a salary schedule for all schools in the state. But conditions have been changing so rapidly during the past year that it had to be "scrapped" by the majority of boards and superintendents in making contracts for 1920-21.

In order to fill all vacancies in the classified high schools of the state teachers have been imported from all parts of the country. Even then some schools were unable to open on time while others had to lower their qualifications in order to do so at all.

This condition caused more or less dissatisfaction on all sides. Teachers engaged in the summer invariably received a better contract than those who had signed up in the spring. New teachers were put on the same level as those who had taught in the district for several years. Because of these facts many boards were forced to readjust the salaries of all teachers in their employ. In order to have a sound basis for this readjustment the writer sent questionnaires to all the classified high schools in North Dakota, some 145 in number. Replies were received from 112, and the following report is based on these returns.

As it is impossible to average the enrollment of our schools by the size of the town or city, due to the fact that the majority of the districts are consolidated and include a large surrounding country territory as well as the town, the following division has been made for the purposes of this report.

First Section—All first class high schools with an enrollment of 500 or more (including both grades and high school).

Second Section—All first class high schools with an enrollment less than 500 (including both grades and high school); and all second class high schools.

Third Section—All third class high schools.

The results secured were as follows:

| First Section. | | | |
|----------------------|------|------|------|
| Position— | Av. | Max. | Min. |
| Superintendent | 3518 | 5000 | 2500 |
| H. S. Prin..... | 2459 | 3150 | 1500 |
| H. S. Teachers..... | 1439 | 1800 | 1200 |
| Music & Draw..... | 1466 | 1800 | 1200 |
| Dom. Sc. & Art..... | 1455 | 1700 | 1250 |
| Man. Train..... | 1973 | 2300 | 1665 |
| Commercial | 1691 | 2200 | 1400 |
| 8th Grade | 1314 | 1600 | 1100 |
| 7th Grade | 1212 | 1400 | 1100 |
| 6th Grade | 1209 | 1400 | 1100 |
| 5th Grade | 1172 | 1400 | 1093 |
| 4th Grade | 1174 | 1400 | 1100 |
| 3rd Grade | 1171 | 1400 | 1093 |
| 2nd Grade | 1188 | 1400 | 1088 |
| 1st Grade | 1216 | 1400 | 1100 |
| Second Section. | | | |
| Position— | Av. | Max. | Min. |
| Superintendent | 2391 | 3200 | 1800 |
| Principal | 1601 | 2400 | 1215 |
| H. S. Teachers..... | 1401 | 1800 | 1200 |
| Music & Draw..... | 1321 | 1800 | 1050 |
| Dom. Sc. & Art..... | 1354 | 1700 | 1125 |
| Man. Training | 1602 | 2000 | 1125 |
| Commercial | 1352 | 1700 | 1125 |
| Agricultural | 1941 | 2400 | 1305 |
| 8th Grade | 1183 | 1800 | 900 |
| 7th Grade | 1145 | 1492 | 900 |
| 6th Grade | 1082 | 1400 | 900 |
| 5th Grade | 1075 | 1260 | 900 |
| 4th Grade | 1074 | 1260 | 900 |
| 3rd Grade | 1077 | 1260 | 900 |
| 2nd Grade | 1089 | 1283 | 900 |
| 1st Grade | 1111 | 1700 | 900 |
| Third Section. | | | |
| Position— | Av. | Max. | Min. |
| Superintendent | 2038 | 2400 | 1700 |
| Principal | 1441 | 1800 | 1125 |
| H. S. Teachers..... | 1297 | 1500 | 1125 |
| Music & Draw..... | 1230 | 1350 | 1050 |
| Dom. Sc. & Art..... | 1342 | 1575 | 1125 |
| 8th Grade | 1104 | 1350 | 900 |
| 7th Grade | 1086 | 1350 | 900 |
| 6th Grade | 1066 | 1170 | 900 |
| 5th Grade | 1061 | 1170 | 900 |
| 4th Grade | 1062 | 1215 | 900 |
| 3rd Grade | 1056 | 1215 | 900 |
| 2nd Grade | 1059 | 1220 | 900 |
| 1st Grade | 1070 | 1220 | 900 |

(Continued on Page 121)



A Scale for Measuring Teachers

Supt. R. C. Clark, Seymour, Conn.



You have heard it said that the most important factor in the development of any school system is the teacher. Of course you have said it yourself. All of us are bromides at times. It is certainly true that the most wise school board and the most progressive superintendent finds the selection of teachers for appointment and promotion a most exacting and important task.

While I was reading the late President William DeWitt Hyde's little book called "Self Measurement" it occurred to me that a similar scale of teaching values would be helpful in my work. Such a scale I have constructed and present here.

This scale has gone all the way to the city that was made famous and back again. The editors kindly assured me that it was all right, but insisted that I add a paragraph telling how to use it. Good. One of the reasons I like this paper is that it is at least 90 per cent usable. This paragraph will come later.

Here is the scale. In the C column I have placed the quality which a teacher must have attained to be even tolerable in the schoolroom. In column B are the qualities which the better teacher must have in addition to those of C. In the A column are the qualities which the superior teacher must have in addition to those of the lower rank.

Fundamentals of Teaching Power

| | C. | B. | A |
|-------------|-------------|---------------|------------------|
| Character | Conforming | Sincere | Positive |
| Scholarship | Accurate | Comprehensive | Original |
| Personality | Commanding | Inspiring | Sympathetic |
| Work | Industrious | Faithful | Self Sacrificing |
| Discipline | Controlling | Reforming | Regenerating |
| Instruction | Thoro | Interesting | Celebrating |

You see at a glance that I have chosen six relations which I consider the fundamentals of teaching power. Teaching relations are complex. Character certainly affects the personality and the spirit of the work. The discipline is in many cases determined largely by the personality of the teacher and the quality of the instruction. Nevertheless my fellow educators, you will do well in estimating the value of a teacher to look to the following as rather distinct points, character, scholarship, personality, work, discipline, instruction, I have found it so. Probably no teacher will rank equally in all, but she must be at least tolerable in all.

Character.

A teacher must have at least a rank of C in character. She must not kill, steal, or bear false witness. She must not drink or smoke. She must not chew gum (in public). She must have at least the negative virtues. This is a minimum essential for a rank of C.

The teacher who ranks B in character is one whose obedience to the moral laws springs from a heart even the secret places of which is purged of all unrighteousness, whose mind is trained to think on things which are honest,

just, pure, lovely and of good report. She has a high and noble purpose in life. She is sincere.

The teacher who is superior in character is steadfast in her purpose, gracefully yielding in nonessentials but firm as a rock in fundamentals. Her life abounds in deeds of kindness. She makes virtue contagious. She is able to see, honor and rejoice in that which is best in others. She works for the larger good. She is a positive force.

Scholarship.

Of course a teacher must have at least a minimum of scholarship. She must know the facts she is to teach. Her language must be free from slang and provincialisms. She must be clear in composition both oral and written. She must be an accurate scholar to be ranked even C.

If she teaches from an overflow of knowledge, if history is to her "a thrilling drama, the tangled web of which culminates in our present civilization," if the emotions of the masters in literature, music, and art find responsive chord in her heart, then she is an appreciative student with a rank of B.

If her method of solving a problem is different from and better than that already known, if she can discover latent power in any agency of nature, if she can so write and interpret the

Scale.

| | C. | B. | A |
|-------------|-------------|---------------|------------------|
| Character | Conforming | Sincere | Positive |
| Scholarship | Accurate | Comprehensive | Original |
| Personality | Commanding | Inspiring | Sympathetic |
| Work | Industrious | Faithful | Self Sacrificing |
| Discipline | Controlling | Reforming | Regenerating |
| Instruction | Thoro | Interesting | Celebrating |

facts of history that these have a new significance, if she can compose a poem, song or story, if she can see old truths in new apparel, she is original in scholarship with a rank of A.

Personality.

Personality has been described as "the greatest of God's great gifts to teachers." She must certainly be neat and clean. She must be erect and alert. There must be that about her which will cause pupils to fear her frown and court her smile. Her bearing must be such that pupils naturally accept her instructions as accurate and her discipline as just. Lacking such a personality, whatever her excellence in scholarship and instructions, she will probably fail. With it she may be ranked C in personality.

There are teachers who radiate happiness and health. Discipline comes from a feeling that to a frank, clear minded, well poised person like a teacher underhand tricks or thoughtless disorder would be a source of pain. She has real enthusiasm, usually quiet enthusiasm, which awakens the pupils to the possibilities of life and learning which lie within them and inspires them to seek the realization of these possi-

bilities. Such a teacher surely ranks a good B.

The teacher with the best personality has all the requirements of the lower grades but adds to it the quality of sympathy. She enters into the experience and feelings of the pupils in such a way that the stupid are not afraid to reveal their stupidity or the precocious their precocity, knowing that she will understand their failures and rejoice in their triumphs. They regard her as a friend and work frankly for their advancement and that of the school, their community.

Work.

To virtue, scholarship, and personality must be added industry. The worker will not always succeed. If any of us were president of the United States, we would probably work hard but most of us would fail. On the other hand a teacher may have the character of a saint, the scholarship of a Lowell, and the personality of a Caesar, yet in order to succeed she must work. The beginning of each school session must find that she has been in her place long enough to prepare for the day's work. The room must be properly ventilated and the heat and light adjusted. The lessons must be definitely planned. Her written work must be well done. Her desk must be neat and orderly. Necessary corrections of written work must be made. Required reports must be submitted promptly. These must be done before a teacher can be ranked as an industrious worker with a rank of C.

Yet a teacher may do all these things mentioned above and not be ranked as a faithful teacher. If she would attain a rank of B, let her work for the class be with each individual pupil in mind. She must study the capacity, the physical condition, the nationality, the age of each child. She must keep in mind that her function is not to teach subjects but to educate the child.

The devoted worker who ranks A, would, assuming her living provided, rather teach without salary than not teach. She trains for her work in somewhat the same manner that an athlete does for a race, avoiding the rich foods, which tend to make her irritable, and late hours, which make her dull. She delights in helping the backward and directing the forward pupil. She sacrifices some of her wages to get inspiration from the summer school. Such a teacher, whatever her faults in other directions, as a worker, ranks A.

Discipline.

Discipline is one of the fundamentals of good teaching. A teacher must so govern that pupils give their time to such tasks as are theirs in study, recitations, laboratory, or shop period. She must control with firmness fairness and good nature. She must have a quiet, busy, well ordered room. This she must do to rank C.

The teacher who ranks B in discipline will be able to throw upon the pupils the responsibility of their own conduct. She will by a confidence in their virtues and an understanding

of their weaknesses help them to see their possibilities and to so shape their conduct that they may attain them.

The room of the best disciplinarian will be largely self-governed. She will inspire her pupils to become good citizens, seeking the welfare of the whole school, refraining from disorder because it retards the progress of the business in hand and hinders others. In other words her pupils get the community spirit. There is a freedom among her pupils, not of bolsheviki, but of the true Americanism.

Instruction.

And now comes instruction. I had almost said that it is most important of all, but I don't know. It is the final test. To be acceptable in instruction a teacher must have in each class exercise a distinct and specific purpose which is a logical part of a larger purpose pervading

and shaping her whole work. She must use a sense of proportion, facts and ideas. She must leave in her pupils' minds a fund of accurate knowledge which shall be of use in their present and after life. She must be thoro in instruction to gain a passing rank of C.

The better instructor is as thoro as the good but adds to that thoroughness. By her own interest in the topic assigned, by humanizing even the most dry subject, by varying her method, she makes learning attractive. She so instructs her class that pupils are eager to accomplish tasks and obtain knowledge. She has the ability to create interest and as an instructor her rank is B.

Thoro and interesting, the teacher superior as an instructor is able to create in her pupils a spirit of thoughtfulness. They create a motive. They trace cause and effect. They apply the general rule to the specific case. They think.

The scale presented is brief and compact. It can be learned in a very few minutes. Thus the superintendent has in mind definite qualities which he must look for in candidates for position or promotion. Elaborate scales often tend to confuse some of us. We do not feel competent to make nice distinctions. With this scale we visit a room looking for distinct qualities, with three distinct grades. The instruction we find accurate. Good. The pupils are interested. Better. The pupils are trained to think Best.

I have found it well to give the teachers this scale and ask them to cultivate themselves along the several lines mentioned. Barely a teacher but what can find some ground for self-cultivation here. The teaching profession is coming into its own. Higher salaries are to be paid. More is to be required of the teacher.

An Experiment in the Grading and Placing of Children

R. A. Kent, Superintendent of Schools, Duluth, Minn.

PART II

Tables VIII and IX show where failures occurred among children grouped according to their intelligence as expressed in terms of the Otis test. One of the significant features of each table is the proportion of children above the normal group in each division who failed to pass. There is indication also of a closer adaptation of work to ability in the junior high school than in the grades.

Special inquiry has been made concerning the effect of this reclassification upon each of the groups of superior, normal, and dull children. A partial answer to this question was obtained thru a questionnaire sent to the teachers having in charge grades five to eight, inclusive. The answers were tabulated, the junior high and the grades separately. The questionnaire was answered by eleven junior high teachers and eighteen grade teachers five months after the reclassification had been made.

Table VIII. Relation Between I. Q.'s and Failures for the First Semester, 1919, of 397 Junior High School Students.

| Intelligence Quotients | No. of Children | No. of Failures | Percentage of Failures |
|------------------------|-----------------|-----------------|------------------------|
| Below 70 | 25 | 1 | 4. |
| 70-80 | 31 | 1 | 3.2 |
| 80-90 | 67 | 6 | 9. |
| 90-110 | 108 | 2 | 1.8 |
| 110-120 | 43 | 1 | 2.3 |
| 120-140 | 74 | 1 | 1.3 |
| Above 140 | 48 | 0 | 0.0 |
| Total | 397 | 12 | 3.0 |
| Below 90 | 123 | 8 | 6.5 |
| Above 90 | 274 | 4 | 1.4 |

Table IX. Relation Between I. Q.'s and Failures for the First Semester, 1919, of 472 Grade School Children Above the 4th Grade.

| Intelligence Quotients | No. of Children | No. of Failures | Percentage of Failures |
|------------------------|-----------------|-----------------|------------------------|
| Below 70 | 119 | 20 | 16.8 |
| 70-80 | 48 | 4 | 8.3 |
| 80-90 | 71 | 6 | 8.4 |
| 90-110 | 167 | 4 | 2.39 |
| 110-120 | 68 | 1 | 1.47 |
| 120-140 | 72 | 3 | 4.1 |
| Above 140 | 27 | 0 | 0.0 |
| Total | 472 | 38 | 8.0 |
| Below 90 | 238 | 30 | 12.6 |
| Above 90 | 334 | 8 | 2.4 |

I. Effects on bright children.

1. Quality of school work done—

| | Equal to | Better | Poorer |
|-----------|----------|--------|--------|
| Grades | 11 | 7 | 0 |
| Junior H. | 3 | 7 | 0 |

Editor's Note:—Part I of this article appeared in the December, 1920, number of the School Board Journal. The present installment, Part II, is a chapter of the annual report submitted by Mr. Kent to the Board of Education at Lawrence, Kans., while he was at the head of schools of that city.

2. Quantity of school work done—

| | | | |
|-----------|---|---|---|
| Grades | 9 | 8 | 0 |
| Junior H. | 3 | 7 | 0 |

3. Is there an attitude developed to be in the first rank, section or group of the class?

| | Yes | No | Among Pro. |
|-----------|-----|----|------------|
| Grades | 14 | 0 | 1 |
| Junior H. | 7 | 0 | 3* |

* Among certain pupils.

4. Is there an ideal of work developed not to fall below ones standard, rank or group?

| | | | |
|-----------|----|---|----|
| Grades | 12 | 1 | |
| Junior H. | 7 | 0 | 1* |

5. Is there a conscious spirit of rivalry developed among the sections or groups?

| | Yes | No | Among Pro. |
|-----------|-----|----|------------|
| Grades | 3 | 2 | |
| Junior H. | 7 | 2 | 1 |

II. Effect on normal children—

1. Are they conscious of the purpose and use of these tests in placing and promoting those of their own group?

| | Yes | No | Partly |
|-----------|-----|----|--------|
| Grades | 5 | 4 | 9 |
| Junior H. | 2 | 0 | 9 |

2. Quality of work done by normal group—

| | Equal to | Better | Poorer |
|-----------|----------|--------|--------|
| Grades | 9 | 9 | 0 |
| Junior H. | 3 | 6 | 0 |

3. Quantity of work done by normal group—

| | | | |
|-----------|---|---|---|
| Grades | 9 | 9 | 0 |
| Junior H. | 2 | 7 | 0 |

4. Is there an attitude developed to be in the first rank, section or group of the class?

| | Yes | No | Among Pro. |
|-----------|-----|----|------------|
| Grades | 17 | 0 | |
| Junior H. | 9 | 0 | 0* |

* Among certain pupils.

III. Effects on Retarded Children.

1. How has the work been adapted to them? The answers indicate a stimulated interest and gradual increase of activity on the part of the teachers who have become entirely or partially conscious of the problems involved in teaching delayed or retarded children.

In the Junior High School instruction suited to the individual needs, adaptation of work to those needs, both from the standpoint of subject matter and of method.

2. Is there an improvement in the quality of school work done?

| | Yes | No |
|-----------|-----|----|
| Grades | 10 | 1 |
| Junior H. | 9 | 0 |

3. Is there an improvement in the quantity of school work done?

| | | |
|-----------|---|---|
| Grades | 8 | 3 |
| Junior H. | 1 | 3 |

4. Is there an increase in interest and effort in school work?

| | Yes | No | Some Cases |
|-----------|-----|----|------------|
| Grades | 11 | 1 | 1 |
| Junior H. | 8 | 1 | |

IV. In your judgment what have been the effects of the use of these tests upon general school spirit and interest? The answers vary. Several stress an increase of interest, to the extent of children asking to make up work which they have missed by absence, and increase in the quantity of work done, a noticeable presence of improvement and progress, a realization by children of their own deficiencies, and a decrease in problems distinctly disciplinary in their nature.

V. As far as you have been able to judge have the results upon children of special promotion been beneficial or desirable?

| | |
|--------------------------------|----|
| Grades— | |
| Beneficial or desirable | 15 |
| Disadvantageous or undesirable | 0 |
| In a few cases undesirable | 2 |

| | |
|--------------------------------|---|
| Junior H.— | |
| Beneficial or desirable | 2 |
| Disadvantageous or undesirable | 1 |

In the Junior High School the outstanding feature seems to be the development of the individual pupil, dull pupils becoming more expressive, gifted children develop the desire to excel and to achieve more nearly up to the limit of their ability. Dull pupils become less self-conscious and more interested in their work. There is a stimulation noticeable to both the retarded and gifted child.

- 1.—Desirable when pupil has informational background to carry the work in the higher group
- 2.—Advantages and disadvantages balance each other
- 3.—Number of teachers not answering

VI. Factors stated by teachers as those upon which they based their judgments:

1. Quality and quantity of work done.
2. Quality and quantity of reviews and tests
3. Attitude towards school work as daily expressed in the schoolroom.
4. School spirit as displayed on the school ground, in contests and in organization meetings.
5. The child's progress since the test.
6. The attitude of both children and parents.

Effect of Test on Different Types of Children.

The conclusions of the grade teachers concerning the effect of the test upon the bright children are that discipline has been easier, interest is greater in school work, higher ideals of work and achievement have been developed, and while some few children feel that they can "slide," yet the majority of the superior children have been benefitted. The chief value to this group seems to consist in a sort of challenge which has been issued to the child by this device of grouping.

The chief value to normal children has been that it has stimulated them to better work, both in quality and quantity. It has caused many

of them to develop a desire to secure special promotions or transfer into the next higher group of their classes.

The classification has had a very special value to dull children, for all school work has been carefully adapted to them. The benefits of this adaptation are shown in (1) the greater interest of these children in their school work and (2) the markedly better quality of work produced by them.

The grade teachers as a whole feel that the reclassification has been beneficial to all classes of pupils.

The junior high teachers seem to be in doubt as to the benefits of the tests and regrouping upon the children. However, in answering the questions relative to the effect of the tests on bright children, they are for the most part agreed that such children are enabled to do both a better quality and greater quantity of work. No teacher stated that the work of bright children was inferior in either of these respects. This inconsistency indicates that there is a prejudice against the mental tests, and that the replies given to the whole questionnaire are not biased in favor of the device, but have in a way underestimated their value.

The normal children of the junior high school are only partially conscious of the purpose of the test, but the reclassification has caused them to do both a better quality and a greater quantity of work. The dull children have not realized the meaning of the test and their greater interest and larger achievement are due to their being classified according to their ability.

One of the most marked results of the experiment was the decrease in the range of ability in each of the several classes. Figures 4, 5, and 6 are for one class only; figure 4 shows the range of mental ages eight, to over seventeen, before any children had been removed from the class; figure 5 shows the mental ages of all children who were taken out. This happened to be one class from which three children were sent to the ungraded room. There were five children given special promotion. Figure 6 shows the place of children, from the point of their intelligence, who were promoted into the class. It is significant that these children represented as high, or higher mental ages, than those in the class before they came. Not the least important feature is the much closer approximation to the normal distribution curve in the mental ages of this class after the children had been taken out and the special promotions had been made. The decrease of mental age resulting from this regrouping ranged, for the several classes, affected from 25 per cent to 30 per cent of the original range. Another way of stating the same fact is that the similarity of individual ability was increased markedly, a condition very necessary if children are to progress according to ability.

Progress of Children in Terms of Teachers' Marks.

A check was made upon the progress of all the children in the groups affected measured in terms of teachers' marks. A weighted grade was obtained for each child by taking the averages of his grades in writing, English, literature, spelling and geography. Two such weighted grades were obtained, one covering marks given before any special promotions were made, and the other covering marks of the same teacher for the same child four months after reclassification. From these two grades the per cent increase, or decrease in achievement, for each student was computed.

Grades—Junior High S.—

| I. Q. | Increase | Decrease | Increase | Decrease |
|------------------|----------|----------|----------|----------|
| Below 80....69 | 32 | 51 | 2 | |
| 80 to 90....28 | 3 | 36 | 6 | |
| 90 to 110....61 | 18 | 47 | 30 | |
| 110 to 120....22 | 5 | 17 | 7 | |
| Above 120...23 | 11 | 33 | 59 | |

Table X. Increase or Decrease in Teachers' Marks.

Table X shows the number of children by intelligence groups for the grades and junior high school separately whose marks show a percentage of increase or of decrease. The table reads as follows: Of the children whose intelligence quotients were below 80, 69 in the grades received better marks after the regrouping than before, and 32 received poorer marks. Of the same corresponding group of children 51 in the junior high school received better marks, and two poorer. The distribution of increase shows that the large majority of students made increases in achievement up to 30 per cent better than their former records, while the increase in individual instances was as high as 150 per cent. The total shows that there is a markedly better adaptation in the junior high school than in the grades to those children in the group below 80. On the other hand there is an unexplainable lack of adaptation in both units to the group falling between 90 and 110. The group above 120 seems to be more poorly taken care of in the junior high school than in the grades. There is no certainty, however, that the condition that seems to be true is the rule only in this case. A careful reading of the answers to the questionnaire would lead one to conclude that the standards of work imposed upon the group above 120 were considerably higher in the junior high school than for any of the groups in the grades below. There was no special group for gifted children but they were, altho given different placement, still working with children of lower I. Q.'s and, therefore, working toward relatively lower standards than children having the same I. Q.'s in the junior high school.

Conclusions.

1. The test as applied seems less reliable for fourth grade children than for children above this grade.

2. The test seems less reliable for colored than for white children of the same grades.

3. The chance of recognition of gifted children is increased many-fold thru the use of this test; only three out of the 78 receiving special promotion had been recommended for such by their teachers after two years' work trying to get the recommendation of worthy children for advanced placement.

4. The whole procedure centered the attention of teachers upon the fact of the existence of the problem of individual differences and aroused in them a desire to meet this problem.

5. There was clearly an attempt by most of the teachers to adapt the course of study to groups, and to individuals, according to ability.

6. Grouping children more nearly according to intelligence, makes for more significant child progress in every group as shown by the marked changes in promotion, failures in toto, by groups and by subjects.

7. Greater progress is made possible because of the shortened range in the distribution of individual ability within each special class.

8. The Otis intelligence test, in spite of all doubts and questions that can be raised in connection with its use, is unquestionably a far safer guide in helping to determine the placement of children than are teachers' marks, and is far safer than the age-grade distribution table.

9. One of the outstanding needs of the school system is a clearer recognition of giftedness in children, and an adequate method of offering such children an opportunity to progress according to their ability. They should be taken care of in special rooms, in a manner comparable with the special care given to dull and backward children in ungraded rooms.

The Illinois State Superintendent of Public Instruction received a letter from a man teacher in one of the rural schools stating that the directors refused to buy a chair for him "to sit down on." Here is certainly an educational poser! The distinguished state superintendent will now be compelled "to sit down on" that rural school director.



BOARD OF EDUCATION, UNITED TOWNSHIP HIGH SCHOOL DISTRICT, EAST MOLINE, ILLINOIS.
H. R. Warren L. F. Haemer J. W. Casto, Supt. T. B. Chambers, Secretary G. W. Mason
C. E. Mitchell, President H. J. Best C. A. Fisk
(See Page 125)

THE SCHOOL SUPPLY MARKET

Arthur Kinkade, Secretary-Business Manager, Board of Education, Decatur, Ill.

The manner of distributing school goods is very obviously a moot question. This must be true because the methods of distribution are by no means uniform in the school trade. In many instances the manufacturer maintains his own sales organization and sells direct to the trade. There are, doubtless, valid reasons for this course from the standpoint of the manufacturer else he would leave the problem of marketing his product entirely in the hands of the jobber and dealer.

The advantage to the buyer in the direct-to-consumer arrangement usually consists in getting the goods at a less cost than would be the case should the goods pass through the hands of two or more middlemen who would of necessity take their percentage of profit.

A second advantage consists in the saving of time in the matter of prompt deliveries. In these days of slow mail and transportation service, this matter of quick connection with the forwarding concern is quite a factor, altho by no means a vital point. The school buyer who has standardized his requirements prefers, I believe, to deal directly with the manufacturer especially in the matter of equipment.

As an example of this statement, let us take the matter of school desks. A school business manager who has charge of many school buildings very much prefers to have school seats uniform in size, style, and finish; for obvious reasons. When standardization is effected in the matter of seats, the product of a given manufacturer is usually chosen as the standard equipment.

It follows that he will prefer standardizing with a well established firm that will be in business when more seats of the same kind are required as the years go by. In a case of this kind, the most direct and satisfactory plan is to deal directly with the manufacturer. The same conclusion is to be reached in the matter of similar major equipment items. The manufacturer may have other and sufficient reasons for dealing directly with the consumer, but the advantages just enumerated seem to be the most significant to the buyer.

In the very nature of school requirements, the jobber of school goods is a prime necessity. I refer to the jobber who is in business to serve the school trade promptly and efficiently from his own sufficiently stocked warehouses. The curbstone jobber whose visible stock-in-trade consists mainly of a catalog file and a clever stenographer, and who acts as a sort of relay station between the manufacturer and the consumer is, in my opinion, a barnacle on the ship of school business, and could be dispensed with without loss or inconvenience to either manufacturer or buyer.

In most small cities the local dealer makes a rather vigorous claim for his share of the school business on the ground that he is a taxpayer, and, therefore, not to be ignored in the matter of distributing the school patronage. Other things being equal, the local dealer should be given first consideration. If he stocks the supplies needed in the local schools, he is entitled to this business, provided that he meets, approximately at least, the outside prices.

If he does not carry the goods needed, or his prices are out of line with what they should be, the efficient school buyer will not hesitate to do business with the outside market. This is espe-

cially true where the school is the largest consumer in the city of specific items required.

Service to Schools.

Next to the quality of the goods, I should say that the most important thing in the school supply game is service. It goes without saying that service costs money to render. It means manifesting a real interest in the goods sold and the satisfaction resulting from their use, or, as sometimes happens, the unsatisfactory experience of the purchaser. All too often we buyers take good service as a matter of course and show no apparent appreciation of really meritorious performance. This is in keeping with the universal practice in every field of endeavor to say nothing commendatory when we are well served, but shout our dissatisfaction from the housetops when we are in any way harmed or slighted.

Vendors of school supplies and equipment should remember this weakness of human nature and in the interest of more and better business give the customer the benefit of all doubts, especially in matters of small consequence. This course may mean the swallowing of real or assumed pride when the customer is in reality wrong in his position, yet it seems to be good business practice to sacrifice moot points to the whims of the customer even though the customer is a cad and clearly wrong in his attitude.

In any event, the firm that expects to remain in business and to enjoy a consistent growth will always write full explanations relative to delayed shipments, merchandise lost in transit, and other similar causes of the non-arrival of goods that the purchaser has a right to be in possession of.

Speaking from my own impressions and experiences, I should say that the one almost unpardonable offense of a firm from which goods have been purchased is the failure to reply promptly and fully to inquiries regarding undelivered merchandise. Matters that might appear very insignificant to the manufacturer or jobber may be really vital to the peace of mind of the buyer.

It quite frequently happens that goods amounting in intrinsic value to only a few dollars may be the means of rather serious educational losses if not received in time for use in the particular classes for which they were purchased. Thus we see the possibility of misunderstanding in these matters because of the difference in viewpoint of the seller and the purchaser.

And there is the very important question, too, as to whether the jobbers and manufacturers should act as banker for the school system supplied with their merchandise, or whether the school system should so manage their financial affairs that invoices, one and all, be paid as promptly and with as good grace as is the custom thruout the commercial world.

At this juncture let me venture the opinion that the evils arising out of this question can very largely be corrected by the men who manufacture school goods by tightening up on extensions of credit to boards of education. To be sure, there are times when a school system must, of necessity, receive some special concessions in the matter of credit, but as an abstract proposition it remains true that it is up to school directors to so organize and manage their financial affairs that these credit concessions become decreasingly necessary and in due season dispensed with entirely.

The Salesman's Mission.

Of all the various types of "service" that a firm might render to its customers, there is, in my judgment, none more important and effective than that rendered by the salesman in a personal way. We are all human beings, and subject, therefore, to the influence of the obliging personality. I do not refer to the patronizing individual who kids himself into believing that the modern purchasing agent is to be lined up through the use of soft words and thinly veiled flattery. Vanity we all have to be sure, but unless the buyer is utterly vain, one of the surest courses to failure a salesman can pursue is to assume that he can exchange mere conversation for nice orders.

The personal service of the salesman, that I mean, refers to that type of salesman who manifests a real interest in your problems and who, oftentimes at great inconvenience to himself, sees to it that you get the goods that you require, and further sees to it that you get a square deal all the way thru the transaction. If there is any merit at all in the system of selling thru salesman rather than by mail, it seems to me that it lies in this thing that we have termed personal service of the salesman.

If he is a real salesman, he knows his line of merchandise perfectly, and he is further familiar with the channels thru which the goods he sells must pass in order to reach the customer. Knowing these two things, there are many points at which he can serve his customer with pleasure and profit to both himself and the house he represents. May this type of salesman multiply and wax fat!

At this point let me touch upon a matter that involves both the question of service and business policy. I have noted a growing tendency on the part of some dealers in school merchandise to get out from under their sales too quickly. It certainly is not conducive to the good will of the customer if he is led to believe that the firm from whom he has purchased a bill of goods loses interest in the transaction immediately the merchandise is delivered to the carrier in the case of F. O. B. shipping point purchases.

The almost intolerable freight congestion during the past year has of course caused innumerable delays to goods in transit. The question as to just when the invoices covering these delayed shipments are due occasionally arises for settlement. While it is perfectly good law that the buyer is the owner of goods bought F. O. B. shipping point when the merchandise so bought is placed in the hands of the carrier and the bill of lading delivered in due form to the purchaser, I maintain that it is very shortsighted business policy on the part of the selling firm to throw the burden of tracing shipments that are delayed or lost in transit under these conditions entirely upon the purchaser.

To do this is to violate the very spirit of service and if continued will spell the beginning of the end of the firm that persists in the practice.

An example of this kind came to my attention recently. A purchased from B a quantity of cases of a school commodity F. O. B. factory. B invoiced A at the time of shipment, enclosing the original bill of lading. The shipment arrived in due season, but the shipment was short two cases of the commodity. A promptly paid for the goods, but deducted from the invoice the value of the two cases that were short as was his custom in similar cases, and advised B to

Note: This paper is an abstract of an address delivered by Mr. Kinkade before the Fourth Annual Convention of the National School Supply Association, at Chicago, December 14, 1920.

start tracer after the missing goods from the shipping point. Notwithstanding that A was a regular customer of B's firm he received a rather curt letter setting forth the law and commercial usage concerning such cases and asking for the immediate remittance for the two cases of merchandise lost in transit.

Remittance was made as per B's demand and the law of contracts thereby complied with. In less than two weeks' time the lost merchandise showed up and A was thus made whole on the deal. B won the point for which he contended, but he has lost for all time the good will and the business of A. Business policy in this circumstance would have prescribed a bit of patience on the part of B, since he had nothing to lose by waiting a reasonable length of time before pressing his customer to pay for something he had as yet never seen.

The time is rapidly approaching again when the purchaser will be able to have some choice in the matter when he shall place his orders, with whom he may please to place them, and at prices that he may know in advance of placing the order. When this time arrives, the fellow who has failed to do all he could for his customer during the past three or four years of stress and trials will certainly pay for his negligence or indifference in the matter of service.

The dictionary tells us that ethics is the science of human duty, and the body of rules drawn from this science. Since ethics is a duty it follows that it is a moral question. In short, it means that being ethical is merely playing the game fairly. Subterfuge and chicanery in all their forms and varieties are unethical, and should be eliminated from consideration by honest tradesmen in determining business policies. The old adage reminds us that "honesty" is the best policy. As a matter of fact, the brand of honesty that is adopted because it is the best policy is not honesty at all, but is, instead, one form of subterfuge. The difference between the two is analogous to the difference that all too often exists between character and reputation.

The association to which you men belong, and that is now in convention assembled, can, in my opinion, do no more constructive thing for the business in which you are engaged than to adopt a code of ethics that will truly represent your conception of a square deal to yourselves, and to the public you serve, and then give life and vitality to the words of your code by living up to the rules that you adopt.

Business with Boards of Education.

It must be conceded that the methods of approach to boards of education are in many instances unsatisfactory to the salesman. The antiquated system of buying thru a committee of the board unfortunately still prevails in many sizable cities thruout the country. It is also unfortunately true in some instances that it is necessary to "see" the members of this purchasing committee in order to do business with that particular board. This situation invites sharp practices to say the least.

The hopeful phase of this matter lies in the fact that increasingly more and more boards of education are revising their business systems and employing an experienced business manager whose business it is to study market conditions and prices so that supplies and equipment can be purchased at an equitable figure. A single competent purchasing agent representing the board in the matter of buying is a step forward, and makes for economy in the expenditure of school funds and also provides a more satisfactory channel thru which school business may be secured by manufacturer and jobber alike.

I believe most sincerely in an organization that has for its purpose the systematizing and



MR. ARTHUR KINKADE.

standardizing of school business procedure, but on the other hand I am unalterably opposed to any system or device that tends to stifle and annihilate good old-fashioned competition. In the same sense that profit is the incentive to engage in business, it should be true that every manufacturer is animated by an all-consuming ambition to produce and market a better product than his fellow manufacturer. To fix prices by agreement or to allot territory arbitrarily for the purpose of attaining the same end, is vicious and unethical.

The time has come when some responsibility for keeping down costs of production must be shouldered by the manufacturers themselves. Someone must put a backbone in business once more to replace the wishbone of which we are all heartily tired. This means that we must once more have honest-to-goodness competition of the right sort. I do not mean the cut-throat

variety of competition that sells goods below cost or at inadequate profits, but I do mean that we must lay away our secret understandings and unstack the deck.

The natural laws of trade should be allowed to come back into action and replace the "heads I win, tails you lose" system that has prevailed in our midst already too long. Let us all see to it that we do our part in removing the heel from the neck of the ultimate consumer. If we do this we are only helping ourselves because in the final analysis, you and I and all the rest of us are the collective ultimate consumer.

In conclusion, let me sum up by repeating that every business concern that really serves humanity is entitled to a fair profit for the performance of that service; that we take care that we do not let our conferences deteriorate into mere conspiracies; and that in the matter of business ethics it is the duty of you men who make and sell goods to adopt a rigid code of ethics that will make it impossible to do school business in any manner other than on the square. This adoption being recommended on the assumption that if off color buyers do happen to be on the buying job for a school system, no slight-of-hand performances may come to pass since it takes at least two parties to make a bargain, good or bad.

The legitimate function of your association, as I see it, is to make good school goods; to emphasize quality and reliability rather than mere cheapness; and then to sell those goods in an honorable manner so that the school child, about whose welfare the whole public school system must revolve, and whose best interests are only held in trust by mere school officials, shall be the ultimate beneficiary of the entire transaction.

THE QUEST FOR THE QUESTION

C. A. S. Dwight, Assistant Professor of Education,
University of Oklahoma, Norman, Okla.

A child is born with a question in his mouth. For three or four years we do not understand what he is saying, but meanwhile he is asking a lot. After that period the questions are incessant, as every parent well knows. A tired mother wrote to her friends, requesting them to call upon her only in the evenings, for, she explained, "I do not feel like a human being until after the children are in bed."

Much of the time the queryings of childhood entertain or amuse or even instruct us, but there is a limit to the appreciation of them by the adult. A fond mother who had been pestered all day long by the interrogations of her young hopeful, finally sent him to bed, saying, "Now, no more questions today!" "Can't I ask just one more question?" asked the little steam "boyler". "Well, dear, just one more question," reluctantly added the mother, whereupon quick came the inquiry from the wee laddie: "Mamma, how far can a cat spit?"

We are not interested, now, in how far a cat can spit (in fact, we are not interested in cats at all), but we are profoundly interested in the boy who *will* ask what is the effective range of feline saliva, for, if he be not prematurely and peremptorily discouraged, that lad will ask better and better questions as time goes on, and may finally become a Newton, a Newcomb, a Dana, an Agassiz, a Kelvin or an Einstein.

It is commonly said that education consists in the ability to solve problems. This is a mistake—for it consists far more in an enlarging ability to find where the problems are or which are to be solved first. We bank on the native

curiosity of the child, we encourage him in his questioning, we stimulate him by suggested "sums" or proffered "projects," knowing that inquisitiveness leads to acquisitiveness, and that he who is on the road quizzing fellow-travelers and reading sign-posts will probably eventually get somewhere.

Yet, the aim is not simply to amass facts. The encyclopedia, says Vice-President Marshall, knows more than any college faculty, but, we may add, any member of such a faculty who is worth his salt understands how to arrange those facts, how to bring in proportion and perspective among them, as the encyclopedia does not.

We need today not the omnibus but the dynamic type of education. We are not to be after everything but after the most worthwhile things, our motto being: "Covet earnestly the best gifts." It is true that we do not always know at once in any particular field of inquiry just what the best or better things are, and here comes in the use of the hypothesis, or shrewd guess at reality—of which hypothesis ninety-nine out of a hundred may prove useless, while the hundredth theory, as tested, yields abundant fruit.

We need then to acquire an increasing skill in the identifying of problems and the raising of the right issues, both in the intellectual and the ethical spheres. The man or woman who, like a Curie, raises the right question at the right time, makes an epochal discovery. When the world of thought was ripe therefor, radium was found. The Curies would never have "dis-

(Concluded on Page 125)

THE COST UNIT IN A SCHOOL FINANCIAL REPORT

W. H. Livers, Assistant Superintendent of Schools, St. Joseph, Mo.

The purpose of this study was to see if it is possible to define costs, or unify them, in making a school financial report. The problem was to see if some one unit, simple enough to be handled, could be found, to which all necessary costs in a school system could be referred, or on which all costs could be based. If one could not be found for all costs, the desire was to find what units lend themselves best to the various items in a standard school financial report.

The approach has not been from the technical viewpoint of the skilled accountant, but that of the superintendent and business manager. They must prepare financial reports that not only will tell them what they want to know about the school's finances, but will be intelligible to others.

School authorities are interested in adequate financial statements that give definite unit costs for two reasons. In the first place, they must know what the system costs by departments, services and buildings. They must know what each subject costs for instruction. They must know what each school is costing. They must be able to compare the cost of such articles as fuel in the different buildings. They must know the unit costs from year to year. It is only as they know these costs that they can take care of the expenditures properly. Usually the principal who is most aggressive gets the most for his building. The only way this can be avoided is to know the costs.

In the second place, the school authorities want to know what the expense is in other systems. It goes without saying, that the only way they can compare expenses is to have the same costs reduced to the same form and units. They can no more compare expenses in two systems where one is based on average daily membership and the other on total membership, than they can compare the costs of teachers and fuel. They want to be able to make comparisons and comparative studies to use in the publicity work, the campaigns for more money, in making the budget and in their own study and administration of the schools.

This study was not concerned at all with the way unit costs were to be used after being secured. It was only concerned with finding a unit or units that would be accurate and usable.

A Lack of Uniformity.

A study was made of a number of school surveys and thirty city school reports, picked at random. The reports studied varied from towns of ten thousand to cities like Boston. Two carefully prepared reports in school finance were also studied.

The study shows an utter lack of uniformity in the nature and form of the financial reports, their object, the items listed, the unit of costs employed and conclusions reached. They vary from the two items, "Total Receipts" and "Total Expenditures," to the long, carefully written analysis of income and costs of cities like St. Louis and Boston. Many are evidently prepared for their own particular public and that public cares nothing about unit costs. Some itemize the receipts and give costs of the different schools in the system by items. Some reports were based on the standard blank form and items required by the Bureau of Education. Others used various forms. Some had every voucher listed. Most of them had evidently given very little thought to a really instructive report. Most of them were of little value, except to their own particular public, and it was difficult to see how the reports could enlighten

even those familiar with the local conditions. Without a great deal of changing and more data, with one or two exceptions, it would be almost impossible to make an intelligent study of the comparative costs of the items in the cities studied.

Dr. Spaulding in the Newton (Mass.) Report for 1913, in discussing appropriations for school purposes says, "Appropriations might be fixed at (1) a certain tax rate; (2) at an arbitrary gross sum; (3) a certain portion of any tax rate that might be levied; (4) a certain amount per capita of the whole population; (5) a certain amount per child within certain ages; (6) a certain amount per pupil enrolled; (7) at the amount spent per capita or per pupil in any other city or town, or (8) at an average so spent by any selected group of cities or towns; indeed, there are scores, hundreds of ways in which this appropriation might be determined." This is in discussing the revenue side of finances.

The study of the reports show a variety of units in determining the costs. Oakland, Rockford, Cincinnati and Bayonne, N. J., are examples of cities using average daily attendance. Detroit, Lincoln and Springfield, Ill., use average daily membership. Newark took average enrollment. Denver, Houston, and Richmond, Va., use highest enrollment. Omaha, Fall River, Mass., and Harrisburg had no cost unit in the reports studied. Des Moines had "per capita cost," while Birmingham had "cost per capita." Tacoma had "cost per pupil" and Topeka, Kans., had "cost based on each one per cent of children (from five to fifteen) in the total population." Boston and St. Louis used pupil instruction hour. Studies outside of the regular city reports suggested room instruction hour, teacher instruction hour, plant instruction hour, one thousand pupil instruction hour, and number of pupils promoted.

The size and type of school system has much to do with the general nature and complexity of the financial report. A village school of one building, with the same length of day for all classes, and no special activities, should call for a very simple, easily prepared report. Probably any one of a number of units for obtaining costs would do. But as the system becomes larger and more complex, the problem of accounting becomes more difficult.

Variety of School Types.

In addition to the simplest case mentioned before, we have many others of various degrees of difficulty. There is found the high and elementary schools, with only day schools, but run on a different time schedule. Some systems have elementary schools with double sessions. High schools may run double sessions, or very long single sessions. There are technical and academic schools. There may be day schools, evening schools, Saturday schools and even Sunday schools in the same system. They might even all be in the same building. Some instructors may teach part time and handle extra-curricular activities part of the day.

Some instructors might teach classes part of the day and fire boilers as a part of the instruction or tend machines part of the day, in demonstration work for instruction purposes. They would thus be doing the work of an engineer or mechanic in addition to their teaching work. Instructors might teach part time and handle such work as the cafeteria. A principal may teach part time and supervise part of the day. A superintendent may spend part of the time in the classroom. Several buildings may be heated from a central heating plant. There may

be two or more kinds of school organization occupying the same building at the same time. Then there is the long list of extra-curricular activities that are legitimate and have a place in the school program. In addition, the school district might be caring for children in other institutions. There are open-air schools, playgrounds, health programs, Americanization work, and manual training classes repairing furniture for which the department receives a credit on the books of the district. These all make the problem of the distribution of funds very difficult.

The list is by no means exhausted. These items have been given to show the complexity of the problem and the difficulty of basing all costs on one unit.

Hutchison, in "School Costs and School Accounting," defines unit costs as, "By unit costs in education, we mean the total cost of education or the cost of any part of it, divided by the entire number of units of any kind that can be used to determine the total cost of public education or any part of it." The cost unit must be simple enough and exclusive enough that it will take care of any cost item, after proper distribution of funds has been made. It must be something that can be definitely and accurately determined, so the final results will be accurate. It must be a unit that can be applied to the system as a whole and also to any part or building, unit or service of it.

In this discussion, let A. D. A. be used for average daily attendance; A. D. M. for average daily membership; H. E. for highest enrollment; P. I. H. for pupil instruction hour and T. I. H. for teacher instruction hour.

Average Daily Attendance.

Perhaps one argument for the A. D. A. unit is its common usage. The A. D. A. for elementary, and high, day schools is easy to determine. The total lends itself easily to computations. Special schools can be equated on the basis of the day attendance by using fractions.

If the system were small and very simple, only one kind of an organization and on the same schedule, the A. D. A. unit would be satisfactory. But the moment the system becomes complex in any of the ways already enumerated, this unit becomes unsatisfactory. It is impossible to compare two daily averages of attendance when they are not the same length. The determining of the equal distribution of funds on that basis, in buildings having two or more school organizations running on different time schedules is almost impossible. If the building is serving many people for a short time, the expense cannot be equated with that incurred by those who spend the entire time there, on a basis of fractions or fractional attendance. A unit cost for Americanization classes, night schools and similar work, cannot be absolutely determined on the A. D. A. basis. It can be gotten as nearly as costs usually get, at least in certain items of the report. These part-time schedules can be computed in fractions of a day but it cannot be absolutely correct.

Most of the arguments for A. D. A. can be offered for A. D. M. It gives a unit easy to compute and easy to determine.

The disadvantages offered for the A. D. A. unit also apply here. It is a rougher measure and hence less nearly accurate. Computing is being done for a service not really given. Membership is an element in costs but not the important one. It is too indefinite.

In computations that have the same costs, regardless of the number of pupils served, the T.

I. H. has a certain advantage. It is easy to determine, does not need close computing, and can be applied easily.

It is unsatisfactory because it does not in any way take size of class or nature of service into consideration. It is too large a unit to get definite results in all classes of costs.

Little can be said about highest enrollment or total membership that has not been said about A. D. M. It might be suitable for rough calculations.

It does not take the actual number into consideration. The highest enrollment might be several thousand different from the A. D. A. It might include pupils who have been in school only long enough to get on the roll and clearly the costs should not include them. One school was studied, that on account of two smallpox epidemics and a fuel shortage, had a total enrollment of over seventeen thousand, an original entry of about thirteen thousand and an A. D. A. of about ten thousand six hundred. Like T. I. H. and in fact all but A. D. A. it does not in any way consider size of classes and is not a fine basis for computation. By this is meant that it will not give accurate work.

A study of the school and its organization shows that the pupil is the objective of all school effort. For him all the machinery of organization and classroom exists. For him the superintendent, janitor and secretary work. For him coal and pens are bought; gas installed; laboratories equipped; courses of study prepared; bonds voted; buildings erected; attendance officers appointed; school activities planned and carried out. He does not exist for them, but they for him. They are worthless in the system, except as they apply to his needs. All the units discussed recognize that the cost unit best adapted to the financial report is in some way connected with him and his activity.

The study made has led to the conclusion that not the day's work, attendance, membership, or average membership is the unit of school work. If we grant that the school exists for the pupil, its activity will be his activity and it will be broken up into as many parts as he has exercises. Is it not fair then to say that the real unit of the entire system, that for which all the organization exists, is the instruction hour of the pupil?

The Pupil Instruction Hour.

This study has led to the conclusion that the best unit of costs in a school financial report is the pupil instruction hour. By pupil instruction hour is meant an hour of sixty minutes, during which the pupil is under the instruction of the teacher. By instruction we mean care, supervision, or direction in any way connected with learning, at school.

This unit has the advantage of coinciding with the pupil's activity. It is possible to determine the number of pupil instruction hours in the system. It will cause no complication when dealing with pupils who are not attending the same length of day or session. It makes it easy to divide the time of instruction into different types of service, if they exist. Day, night, or special schools, Americanization classes, and part-time classes are all easily computed and averaged. It takes account of the time pupils are actually in school, and it is mainly for them that the expense is incurred. It seems to make a more accurate unit of costs possible than the less accurate measures.

For measurements not in any way affected by numbers of pupils or instruction, the unit just offered might seem to have disadvantages. However, the attempt is being made to find a unit that will fit all, or the greatest possible number of cases. It is offered as the unit that

will give more costs accurately than any other unit so far suggested.

Before the statement can be taken as conclusive, it must be tested by the various costs that come in a school system. While this study was not made from the angle of a skilled school accountant, yet the findings must be shown and proven in a way to satisfy him. The study is not primarily concerned with the distribution of the money, between certain funds. Yet, it must be shown that the unit chosen makes possible a distribution that is equitable, and accurate and fits in with it. The discussion is not concerned with the question as to whether "Capital Acquisition and Construction" and "Other Outlays" should be charged up to costs or expenditures.

It is not concerned with many other questions of accounting. The position is not taken that other units could not be used under certain conditions. Perhaps it is not the best in all possible cases. This discussion will endeavor to show that the P. I. H. is the most satisfactory single unit and will fit in most cases. It will also suggest other units that might prove satisfactory.

WAGES.

Frances W. Turner.

Some say that all the wages
Are due to politics.
And so the men in office
Are the ones who get the kicks.
Just now it is the democrats,
But soon the "G. O. P."
Will have the managing to do
And then how will it be?

Will there be less for the workman,
And the man behind the hoe?
Will there be MORE for the teacher
With her wages now so low?
And the minister and doctor
Whom you meet on every hand,
Will THEY have better wages
Thruout our big, broad land?

'Tis the faithful teacher's influence
That makes the future's men;
With the parent, they go hand in hand
To mould the citizen.
The cry of higher wages, now
Is heard from east to west,
But for value of their labor
Our teachers need the best.

It must be kept in mind that in each item of cost those who have the schools in charge want the cost for each unit or school in the system. They also want the total cost for any, or all, items in the entire system. These, in both cases, must be reduced to the cost unit. It is only in this way that the costs can be known as they want them.

In this presentation, the standard form required by the Bureau of Education with its items, will be followed. This consists of eight heads with subheads under each.

Instruction Costs.

Most school accountants and those handling school finances seem to agree that the expense of administration is a separate item from instruction. Those dealing with the school plant as a whole, should not be considered in costs with those teaching. If the system is small and the one in charge teaches part time, his salary must be divided between instruction and administration, in proportion to the relative time devoted to each. In larger systems the entire time would be charged to administration. If there is a secretary and business manager, superintendent of buildings, legal department, attendance service, etc., the aggregate can be obtained for them and very easily reduced to a

unit of cost. The P. I. H. is the best unit. A. D. A. will do and is satisfactory in so far as the A. D. A. is accurate and equated for all services. As was said before, it is an easier matter to get the actual number of pupil instruction hours than to reduce all the attendance in a system to an A. D. A. and have it uniform. Each building can be charged with its share of the administration service. That will be a uniform charge for all the buildings.

When we come to the matter of instruction charges the problem becomes more complex. To get the total instruction cost for a building, the time spent by the principal in instruction, that spent by the regular classroom instructors, the time spent by supervisors in classroom instruction, and the time spent by special teachers must be added to get the total amount to charge to that item. Here, as in the other case, the proportion of the entire time of these instructors, not regular classroom teachers, that is spent in teaching, is taken to make up the teaching cost. The same is true with supervision. The time the supervisor spends in a building must be charged to supervision. So to get the supervision charge for any building, the time of the principal spent in supervising is added to the proportion of the supervisors' time that is to be charged to any particular building.

If the building is a high school, with department heads, the time they spend in supervising must be charged to supervision. The P. I. H. unit will take care of any item in this instruction list. Teacher Instruction Hour might seem best for the instruction period and expense, but this study did not lead to that conclusion. The A. D. A. will do in some cases, especially in a very small, simple system. The same would apply to textbooks or other supplies of instruction. If charged to the building, the cost can be found on a P. I. H. basis, by buildings. If they are charged to the system as a whole, the charge can be made in that way. In the long run, each building must bear its share of the cost.

Apportioning Operation Expenditures.

The Gary report on finances says: "To apportion plant operation expenditures is in the highest degree difficult." As in other expenses, a unit is necessary that will account for all costs. Take the matter of fuel and engineer. If it is merely a day school, the building is heated for the session and cost can easily be found on the P. I. H. basis. If there is an evening school, no better method has been found than adding the P. I. H. hours there and computing the cost for both school organizations on that basis.

The janitor service can be handled in the same way. If the light and power is used in both day and evening schools, that expense must be charged to both. Relative costs for electricity and water can be obtained by having the janitor read the meter at the close of the day and evening sessions. This would give amount used by each. If either or both were used at only one session, the service could be charged to that session. If there is a big school shop and the light and power is on separate meters the same principle holds.

On this point the Gary report says: "To apportion plant operation expenditures on the basis of pupil instruction hours would hardly prove more satisfactory." This base emphasizes attendance but ignores the fact that there are elements in the cost of heating, lighting and caring for a plant altogether independent of the number of pupils in attendance; hence this base tends to lessen the operation burden of auxiliary activities and to overload the day school." Even if this was granted, to work out each item of the operation costs on a different basis, using

different units, would make the accounting and reporting so complex that few systems would do it.

Besides, any other unit would be open to just as much criticism. Room instruction hour might be used. But it is also open to just as much criticism. The P. I. H. unit recognizes that the school plant as a whole exists for the pupils as a whole. Until methods of accounting and the methods of estimating and distributing costs are much simplified, room instruction hour and P. I. H. are the best units that can be used. It seems that the advantage is with the P. I. H. unit, according to this study.

The maintenance of the school plant may be a simple problem. If a superintendent of buildings is in charge of repairs, he can charge each building with the time of workmen and material used on it. If there is a central shop, a certain part of the time and material must be charged to the shop. This shop cost can be charged to the system on the P. I. H. basis. The work on each basis can be charged to it on that same basis. To get the total cost, add the charge to each building to the general charge and get that cost unit on the P. I. H. basis. The entire cost to each building will be found in the same way.

There is another possible case. It may be that the manual shops in the building do the repair work for the building. The cost for such material and labor should be charged to the building and the general maintenance, the same as if regular workmen did the repair work. Then, if desired, that manual shop can be credited with the amount of labor performed, in computing the final expense of the shop. Replacements can be taken care of the same as repairs. They will be charged to the building and school where placed. The unit cost for each building and for the entire system can then be computed. P. I. H. plant instruction hour, or room instruction hour can be used in this. P. I. H. seems better for the sake of uniformity, if for no other reason.

Dealing with Fixed Charges.

Fixed charges are generally a charge against the system as a whole. Rent should be charged up to the particular school and to the system. Pensions, insurance, taxes, etc., can be a charge to the system. If the tax is a special tax, and the insurance is boiler insurance it can be charged up to the particular building. It can be a charge to the particular building and then the aggregate can be charged up to the system as a whole. Land added to the building sites can be charged to the particular building. New equipment can be charged to the building receiving it. Repair of old equipment would be handled in the same way. In the case of adding land to building sites, the general principle is involved as to whether capital acquisition or construction should ever be a charge against the costs.

Additions to buildings bring up the same question. That discussion is not a part of this paper. If it seems best to charge land added to building sites already owned; alterations of buildings; or new equipment of old buildings, to that building and reduce the charge to unit costs of the building, it can easily be done. If it seems best to add the items just mentioned to new building sites; new buildings and equipment for new grounds and buildings, no part need be charged to any building or site already existing. Whether it be charged as a cost or an expenditure, the total charge can be found easily and reduced to the P. I. H. unit of cost. Debt service can be estimated on the P. I. H. basis. This will keep the reports uniform.

Each auxiliary agency must be taken care of according to the service rendered. Library

books should be charged to the school where placed. Then the entire cost for the system can be estimated on the unit basis.

The health service is for the system as a whole and the unit of cost can be gotten on the basis of the entire service and system. If a nurse spends her entire time in one building, her service would be charged to that building and computed on the unit cost basis as one of the items of expense of that particular building. Then her expense and cost would be added to the other items in connection with health and charged to the whole.

Any other expense coming under this general division of school expenses can be computed on a cost unit basis. Medical inspection, dental clinics, health exhibits, etc., all come under the same head. Miscellaneous expenses are a charge against the whole system and should be taken care of in that way. An exception might be a special school of the institution type. If such an institution existed there could be a unit cost found for it and its expense charged as a unit cost. It could also be one of the cost items in the expense of the entire system. In any of these expenses, the P. I. H. or the A. D. A. unit will do. As in other cases, the P. I. H. unit has the advantage, for the sake of uniformity, if for no other reason.

Distribution of Costs.

To sum up this discussion, we will restate the units that seem best adapted to the various parts of the total cost. Expenses of General Control, average daily attendance and pupil instruction hour with the preference on the latter; Expenses of Instruction pupil instruction hour with average daily attendance a possibility; Expenses of Operation of School Plant, pupil instruction hour and room instruction hour; Expenses of Maintenance, pupil instruction hour, plant instruction hour and room instruction hour; Fixed Charges, average daily attendance, or pupil instruction hour with the latter seemingly having the advantage; Debt Service, average daily at-

tendance and pupil instruction hour, the latter being preferable; Capital Outlay and Acquisition, pupil instruction hour, and perhaps average daily attendance; Auxiliary Agencies and other Sundry Activities, pupil instruction hour or average daily attendance, and the preference with the former.

The study of this subject has made much clearer the need of a unit of costs that can be used under all normal circumstances. It has seemed that the best unit would be a small one. The suggested unit has been tried in the various cost items.

An attempt has been made to keep before the mind of the reader the fact that the problem of distribution of costs where they belong, in the items where they properly come, and the matter of reducing them to a unit, in a measure, are two separate problems. It is true that expenses must be distributed to a certain extent on the basis of unit costs. But the showing that is made in the annual financial report is the final result after distribution has been made and gives the costs.

An attempt has been made to keep definitely in mind the two purposes of a financial report. If the pupil instruction hour unit cannot show each cost in each school and service, of a school system, it is not entirely satisfactory. This allows the intensive study of costs in a system. This will enlighten the authorities of a system on each cost in the system. Then if the same unit will not allow a comparison of costs in any system, with those of any other system, it is also inadequate. The units that seem to do this have been suggested.

The endeavor has been made to find one unit that would most nearly take care of all costs, believing that a uniformity of items, made possible by one cost unit, would be the best. As already shown, the unit, that for simplicity and its ability to care for all cost items, seems the most satisfactory, is the pupil instruction hour unit.

HUMAN WASTE IN EDUCATION

Supt. H. O. Dietrick, Kane, Pa.

With all the progress in standard methods employed in school administration, it is a singular fact that we still follow the traditional waste of the last century in many respects when it comes to the selection of our leadership. This waste, I believe, is due to a lack of largeness of vision on the part of those responsible for our educational program. Perhaps I can best illustrate what I mean by giving a few concrete examples:

More than six months ago it became known that the superintendency of city schools of a city of almost 2,000,000 would become vacant. The resignation of the superintendent took effect more than four months ago. The board of education invited a few of the most progressive schoolmen in the country for an interview. However, none of these men was selected. The only reason seemed to be petty politics and factions on the board.

Six months of precious time has passed; the welfare of about 150,000 children ignored. Should there have been a vacancy in any one of the industries which these men represent, the position would have been filled *at once*, the selection based on *proven ability*. Why? Because their immediate profits would have been at stake had they not acted. The business principle on which these men work in their own industries they deliberately ignored when it came to dealing with *human material*.

Again, some time ago it was my good fortune to be in a city of 200,000 while the board of

education was filling their superintendency. There were some thirty applicants. These were sifted, the Chamber of Commerce tells me, to six. The position went to a man holding a superintendency in a city of about 70,000 population. This man's name never appeared on state or university educational conferences; his education ended when he left college; he never took graduate work in administration; his work was of the traditional routine type; his work did not have the indorsement of educational experts, and he was unknown, as well as his work, save in his own community.

On the other hand, there were among these six a young man of normal, college and university training; three years of graduate study at the country's biggest universities; he had passed thru the various steps or phases of public school work; had lectured in summer sessions of teachers' colleges and universities thruout the country; his name was known thruout the country, even across the sea; educational magazines frequently commented upon his work; educational programs frequently contained his name, and educational experts ranked him as one of the strongest administrators in the country. Yet he was ignored for this position. Why? The reason, as given by the board of education, was that he never had experience in a town exceeding 10,000 in population, therefore unable to take charge of a school system in a town of 200,000 population.

(Concluded on Page 122)



Tests and Scales as Aids to the Supervisor

J. A. Nietz, A. M., Superintendent of Schools,
Perrysburg, Ohio

The real purpose of supervision is to improve teaching. As to how this can best be done gives rise to many differences of opinion and experimentation. Often when the supervisor visits a classroom, he feels like the doctor visiting a patient having influenza; he knows there is something wrong but is at a loss to know how a cure may be assured. One doctor will prescribe red pills, another white, and another blue ones, yet in regard to influenza in large part, the treatment is one of trial and error. Much supervision has been along this line. The problem then is, how can an improvement be best accomplished?

There are two angles by which a good supervisor may approach his problems: 1. By personal visitation of the classroom. 2. By the impersonal analysis of the teacher and her work by means of standardized tests, scales, and other similar means for testing efficiency.

In the past nearly all supervision has been of the visitation type only. This was not done alone by the supervisor, for even today not all rural schools in the United States have a supervisor, but by members of a board of education or by a school director. Their criticisms of the teacher and her work were nearly always personal opinions rather than fruits of educational thought and practice. Many of these visitors knew less about school work and teaching than the teacher herself. Proper teaching methods can never thus be developed. However, classroom visitation still plays an important role. It is fine to determine the appearance of the room, the pupils, and the teacher. It also brings to the schoolroom that personal touch and cheer which no other means can do, for the human equation can never be omitted from successful, functioning school work. It gives the opportunity to judge the teacher as a real human personality before the pupils, to judge the voice, methods of teaching, etc. This form of supervision should never be belittled. However, it also has its serious limitations.

The supervisor is often deceived in the impressions he receives from a classroom visit. The teacher who has a tendency toward bluff or who flatters her own work can put her best side out during her supervisor's visit, thus giving him an impression that she is a wonderfully successful teacher, while in reality she may be a very inferior teacher as far as real results are concerned. On the other hand, in the case of a teacher who is easily embarrassed by a visitor, or one who is modest, the opposite may be true. Such teachers are often hard workers and really teach for service and not for show or ostentation.

Also, as few supervisors make an all-day visit to a single classroom, they cannot get a balanced impression of the teacher's full worth, nor can they determine whether the teacher is free from hobbies. Often teachers destroy their effectiveness because they spend too much time on their favorite branches of study, at the neglect of other studies. With some it is arithmetic, with

some spelling, and with others writing or music. In fact, all these have their place in the curriculum, but one should not be neglected at the sacrifice of the other. Such conditions are difficult to determine by the common method of supervision. Other limitations could be mentioned but space must let these suffice. However, they show that another angle of approach is necessary to really improve teaching effectively.

The second method is the impersonal analysis of teaching by means of examinations and tests of efficiency. It is this method that has been sadly neglected. After all, it is the scientific method of approach, for it really measures results. Here is where the use of standardized scales and tests can serve as an aid.

What Are Standardized Tests?

Tests have always more or less been used to determine the knowledge mastered by the pupils in school, but most of these have been sorely inadequate. The common practice has been and still is, to give a set of questions, generally ten, for the pupils to answer. The teacher grades these by mere opinion as to the value of any answer, and each question is graded on the basis of one-tenth of the whole regardless of its relative value in the list. Also, it has been proven that seldom do two teachers grade alike. These facts have led to a different style of tests. Many such tests have been devised. They generally take the form of a list of questions which can be answered in but one way, and thus every answer rendered must be right or wrong. These are then given to thousands of pupils in different cities and states to determine the relative weight or value of each question. The average or medium accomplishments of these pupils are then found, which become the standards for such tests in the various grades.

Hence the term *Standardized Tests*. Thus when the fifth grade teacher gives such a test, for example the Courtis Test in Arithmetic, she can soon know whether her pupils are above or below the standard, i. e., know if her pupils can add, subtract, multiply or divide more or less problems correctly in five minutes than the average of the thousands of children who have taken the Courtis Test.

The chief standardized tests and scales are: In silent reading, Monroe's, and Courtis'; oral reading, Gray's; vocabulary test, Thorndike's; arithmetic, Courtis', Studebaker's, and Monroe's Reasoning and Diagnostic Tests; spelling, Ayres'; writing, Ayres', Thorndike's, Gray's, and Freeman's; English, Hillegas', Willing's Composition Scale, Charter's Diagnostic Language Scale, and Starch's Punctuation Scale; geography, Courtis', and Hahn-Lackey's; history, Harlan's, and Bell-McCollum's.

How Do Scales and Tests Aid?

There are several distinct ways in which supervision can be aided by means of scales and standardized tests.

1. They offer very definite aims and goals to be reached in teaching and offer a means to

determine when these have been realized. Not only will the requirement in the course of study be to have each pupil in the fourth grade write all the copies in Writing Book, IV, fifteen times, but attain the ability to write 56 letters per minute and the quality of which should be 46, according to the Ayres Scale. In the past too much stress has been placed on completing a certain number of pages in the prescribed texts, rather than attaining certain qualities in the work studied. Many teachers do not know what is expected of them other than to cover or rather go over so many pages each year. This is especially true of young and beginning teachers. Teaching would be so much more effective if each teacher knew just what ability or accomplishments ought to be attained by each pupil in each respective grade. The proper use of scales and tests would lead many a lost teacher out of our educational wilderness.

II. They help the supervisor to control and assist his teachers more effectively and scientifically. This is done in several ways. 1. They help and assist in belittling the self-satisfaction and conceit of some egotistic but unsuccessful teachers. Many such teachers have good hidden ability but need to be humiliated by some other means than the personal criticism of a supervisor. The use of standardized tests will often reveal that she is not as good a teacher as she thought herself to be, so she may forget to see the "mote" in the other's eye and realize the "beam" in her own, and begin to remove it. Many a teacher who has reached the stage of self-sufficiency has seen it necessary to step off her self-exalted pedestal. Such one still has a future if self-improvement is sought.

2. They will show up both the teacher's hobbies and neglects. Few teachers are balanced in their tastes and emphasis in the various branches. A teacher may unconsciously and unmeaningly neglect or minimize one branch of study and overteach another. One teacher just loves history but despises arithmetic. She would likely neglect arithmetic and spend the extra time on history. However, if she would give the tests she would aptly find her pupils low in arithmetic and high in history. She would see the need of a remedy.

3. A supervisor always wants to know the comparative merit of his teachers. The results obtained from tests properly given in the various classrooms from time to time will give him a better basis to compare the work accomplished by the different teachers. The teacher who can make the finest show when the supervisor visits her room does not always merit the highest praise nor the best results.

4. They help the supervisor judge and compare the relative merit of the different methods of teaching. Nearly every teacher has a personal favorite method. Can a supervisor judge which method is the best by mere personal observation or by opinion? Not always. After all, the method which secures the best results is the superior method. Tests help to measure

such results. Thus four distinct ways have been pointed out by which scales and tests assist the supervisor in supervising the teacher.

An Educational Revival.

III. They make it possible to compare the standards in different schools. Every supervisor is anxious to know how his schools compare with those of other cities and systems not only in his own locality and state, but in other parts in the United States. Some schools and towns get the opinion that their schools are the best in the United States. This leads such schools to be so satisfied with present conditions that they are not open-minded to the new things in education which are really worth while. Educational near-sightedness and immunity is the resulting ailment. If tests were to be given in such schools and real conditions revealed in comparison with other good school systems, a new hunger for an educational revival may again be restored.

IV. They aid in judging the merits of texts. Determining the relative values of the various textbooks has always been a matter of much debate. Even textbooks have been written on

"How To Judge the Value of Textbooks." Yet after all is said and done the best way to judge the merit of any text is by the results it brings. Merit rather than the friendship or enmity of certain book companies ought to be the deciding factor in the adoption of any textbook. One valuable way to judge results is by means of tests of the pupils who have been studying certain texts for some length of time. This can be illustrated by tests in our own Perrysburg schools. In December of last school year we gave two tests in arithmetic—the Courtis Test on the four fundamental processes, and Monroe's Reasoning Test in Arithmetic. We found every grade in our school slightly below the standard in the Courtis Test, while every grade was markedly above the standard in the Reasoning Test. This difference can be attributed, partly at least, to the text we use in arithmetic. It minimizes drill work and emphasizes problems which involve reasoning processes. Such results may lead to the revision of such texts so as to balance its work.

V. Tests help in balancing time allotments. How do we know just how much time should be allotted to each branch of study? This is often

a matter of mere personal opinion. However, after giving good standardized tests in the various branches of our course of study, we can see which are below and which are above standard, or which are the more below or above. Suppose that arithmetic be found much above the standard while reading be below, the supervisor would have some tangible basis for the reallocation of time. Thus a better balance of time spent can be secured.

VI. Finally, standardized tests, if rightly used, can be used to a great advantage in the classification of pupils. This will be true in determining promotions at the end of the year or at any promotion time, and especially in determining the classification of pupils coming from other school systems, the standard of which is under question. This aid ought to be a matter of grave concern to any supervisor.

Thus, in this paper the writer has attempted to show some of the advantages of standardized tests and scales to a supervisor. It is hoped that the statements made have not overrated their possibilities. Let us at least hope that this paper has presented some food for thought.



The Right Kind of Parent-Teachers' Association

Hope K. Corson, Dalton, Mass.



In places where the wrong kind of Parent-Teacher Association exists, or where there are no associations at all of any kind, there is a rather prevalent impression that they are organizations whose main activity is making trouble for any and every one connected with the schools, and that they are brought into being and fostered by meddlesome parents whose chief delight is in following the simple old rule for creating a disturbance—the rule which ran, you may remember, "Take nothing, and stir it up a little."

If only the skeptical schoolmen and the antagonistic teachers, and the unwilling superintendents could see for themselves what such an association may become when controlled by the right motives and wisely directed! Because all cannot have a chance to see how it can be made to work out I am going to describe such a P. T. A. for this journal in the hope that, somewhere, some one reading about it may be encouraged to attempt a similar society along the same lines, with the same spirit, and the same immeasurable capacity for good.

This P. T. A. is the largest one in the state of Massachusetts, and is connected with the Henry L. Dawes School at Pittsfield in the "heart of the Berkshire Hills." When I say it is the largest, I mean the largest whose membership is made up solely of teachers and parents. There is one other larger association which admits any one to membership upon the payment of annual dues, but that is not the fundamental idea on which to form such an association—the body becomes too large, and made up of too many persons not really interested, in other words, it carries along too much "dead wood."

No Meddlesome Interference.

This Dawes P. T. A. was formed a number of years ago and has been steadily growing. As a rule about 70 per cent of all who are eligible for membership belong to it. The dues are only ten cents, and a penny collection is taken up at meetings. Every year when the drive for members occurs a prize is given the room having the highest percentage of parents belonging. It is gratifying to note that there are about as many men who belong as women; we proceed on the theory that fathers are parents, and always several of them serve on the executive board, where they prove extremely helpful.

I wonder if the presence of so many men at board meetings and in the society has anything to do with the entire lack of "meddlesome interference" which some superintendents encounter in such bodies? Fathers are a trifle less prone to become violently agitated and to raise issues, we find, and a little more reasonable in approaching our problems. I venture that for one father who appears at school to attend the matters which do not suit him there are a dozen mothers. Not that the fathers are less interested, but they take a different view of details which seem of tremendous importance to Johnnie's fond mother. Isn't that so?

And I think another feature which holds the association in its proper place is the placing, as the permanent chairman of the executive board, of the principal of the school. In the long run her's is the voice that counts most, and this is as it should be, for no one else knows the needs of the school as she does. Her attitude is the correct one of supporting her faculty at all times, and any fault-finding that reaches her ears must come from parents as individuals and not from parents as P. T. A. members.

Board meetings are not used as occasions to dissect teachers. In fact, two teachers always serve on this board, and are usually present. If every principal, wishing to gain for his building the advantages of such a society, would see that it was organized in such a manner that he need never let his control of affairs pass to other hands, one cause of friction and loss of harmony would be removed.

What the Society Has Done.

Now, for a brief account of some of the things the society has done for the school:

First, a complete outfit of folding chairs, enough to convert the large kindergarten room into an auditorium, was purchased. Big boys attend to placing and removing these whenever it is desired to use the room, and the teachers have the use of the chairs at any time they wish to use the kindergarten room for entertainment purposes.

One of the next steps was the purchase of a gas range for a basement room and an equipment for making cocoa for children who brought cold lunches and came "in teams" from a distance. White enamel ware was selected, and the large tanks are also used to make coffee for evening socials. The older girls see to making the cocoa and serving it, and to the washing of the cups. It has proved financially possible to serve it for two cents a cup. If the enterprise were not self-supporting, the society would make up any deficit. This has never been necessary. Much more could easily be done in the line of hot lunches if desired.

A stereopticon was then purchased and is used for illustrated "mothers' lectures" by various specialists, for example, dentists, and experts in the correction of defects of posture and spinal troubles. The teachers use it for geogra-

phy, and in countless ways. A set of stereoscopes with a large and constantly growing collection of pictures, suited to all the different grades, is another gift of the association, and the geography classes make daily use of these views.

Right here perhaps I should say that the city furnished none of these things anywhere. The appropriations for school supplies are pared down to an irreducible minimum. Tax bills are very high, and no "extras" are allowed; only the most limited quantities of books and paper are ordered, let alone such "non-essentials" as pictures for pupils to look at!

Furnishings and Pictures.

The building had no library until the P. T. A. took hold of the question. Now there is a "library shelf" in each room and it is planned to make continual additions to it from time to time as funds become available. It was felt that the books could be better adapted to the needs of the children if they were arranged this way rather than in a central library room.

The teachers' rest room was furnished by the association, and is a comfortable place with a large couch, wicker rockers, a lunch table with an electric grill, and attractive rugs; quite the equal of similar rooms in the larger cities where money is spent more lavishly on school equipment.

It is planned to do a good deal in setting out the grounds to shrubs and vines a little later. Recent large additions to the building, and the necessity of getting the lawn "seeded down" afterwards, have postponed this scheme, but it is only postponed and not abandoned.

Pictures have been bought for the schoolroom walls, and add greatly to the beauty of the building. A sewing machine was an early gift, and during the war the sewing room was used twice a week by Red Cross workers who met there to sew and make dressings rather than walk up town to the Red Cross center. Other machines were lent the building for this time of need, and thirty or forty mothers gathered to use this convenient neighborhood center. Much Red Cross work was done in the classrooms and after school by the children.

Child Welfare Work.

While this society is not in any sense a charitable association, yet it contributes to child welfare work and assists and cooperates with, in every possible way, all the other agencies for social betterment in the city. Poor children in the building have been fed a quart of milk a day upon the request of the teacher. A little girl with an arrested case of tuberculosis, who was losing ground, was fed not only milk but an egg a day for a long time, the teacher preparing the extra nourishment and the society footing the bills.

One of the most recent purchases has been a set of scales like those used by doctors, and a chart for each room, of the kind provided by the Child Health Organization of New York. Pupils are henceforth to be weighed monthly and their gain recorded on these schoolroom charts. Of course, this is an old story in up-to-date localities, where pupils are weighed as often as they are given tests in the sacred subject of arithmetic, but please bear in mind that in this city of forty thousand no children outside of Dawes School are having this attention paid to their health.

The interest with which they gather around the chart to study its figures is most encouraging. The recent studies regarding children's weight in relation to general health show what a very important matter it is. I believe classroom teachers in time will be able to provide data showing the relation of under-weight to

"the fidgets," and fatigue, and of pronounced over-weight to mental inertia!

But, to return to the P. T. A. In addition to the little charities I mentioned in the case of under-nourished children, a great deal is done toward helping clothe poor families. The section in general is extremely well-to-do, but every building has its quota from "across the tracks," and we have our corresponding "poor" neighborhood. Some good-sized Italian families, worthy and industrious, but fairly swamped with little Amatos and Louisas, are practically clothed in the slightly worn, or outgrown garments of the prosperous among us. The principal's office sometimes looks like a clearing house for old clothes, but they all find their owners, and voluble blessings are rained on her head for her trouble in requisitioning and reapportioning all this apparel.

I am sure I have not told half of the things this earnest group of helpers has accomplished for our building. But it may be helpful to give some idea of how all this has been done, for these things have all taken money, and lots of money, too! And besides, there has been an allowance to the principal, of \$25 each half year, which she spends as she sees fit, on various necessary or desirable articles, ranging from reference books for the teachers' desks to bandages, iodine and aromatic spirits of ammonia for the emergency shelf in the office.

Sources of Income.

Money has been raised in various ways, but the quickest way of acquiring a large sum with no outlay was found to be the rummage sale. One hundred and twenty-five dollars can easily be cleared in a day in any section where foreigners are plentiful. The articles are brought by the members, and the crowds and the sales are positively unbelievable. A vacant store is donated for the day by a liberal business man, and practically the only expense is a few cigars for the representative of the majesty of the law, whom we persuade to stand among us during the early rush hours when our cheerful buyers are most unmanageable.

Another very popular device is the dime social, with a simple program, and light refreshments, and dancing for the high school crowd. The janitor attends to these functions for the slight consideration of \$2 an evening. The lighted building is most attractive, and there are always large crowds at these affairs. Sometimes tables of home-made candy invite our inspection, with the sign bidding us "Spend Something Here Besides the Evening!" (We do more than inspect.)

Food sales are another source of income and are always well patronized. Christmas socials have become an annual affair, with a Santa Claus, an auction of wrapped "mystery packages," a fireplace where ten cents causes a parcel to fall into waiting hands, the inevitable candy for sale, and countless other attractions. The children have a great deal of liberty, but are not allowed to run, or to set anything in motion, and failure to observe these mild restrictions results in an immediate departure for home, so there is general good order, but a tremendous noise.

One very profitable venture was a "living picture show." The children were posed in a doorway, with the usual gauze and gold frame, and some beautiful reproductions of famous paintings were selected and presented. This drew countless parents and friends and was repeated to accommodate the crowds.

Sometimes teachers who are talented in this direction get up entertainments, or repeat programs they have arranged in their various churches; or plays which young people have given successfully for their church or Sunday

school are presented again at the schoolhouse, for half the receipts, or some such arrangement.

Mothers' Meetings.

The mothers' meetings are held in the afternoons, and are well attended. Nurses, doctors, social workers, experts in every field, are usually glad to address such a group. Child feeding, teeth, the problem of the adolescent girl or boy—every topic that mothers are interested in—the executive board tries hard to make these afternoon meetings count for something. Sometimes there is a free discussion after the lecture. Mothers come who can barely understand the speaker, and mothers who are college graduates. It is a little "melting pot of democracy."

Evening meetings are designed to interest the men as well as the women. In the fall, just before election, good speakers presented the strong points of both party platforms to an enthusiastic audience. Sometimes a city official speaks, or a prominent clergyman with a special message acceptable to all. It has not been found hard to get good speakers, and musical organizations frequently give their services for a program or for dancing. Everyone knows it is all for the children.

When a new superintendent of schools was hired the association, which includes many of the city's social leaders, tendered him a reception which was a very delightful affair, and at which most of the school board, the mayor, and other city officials were also guests of honor.

Last year the teachers entertained the mothers, one afternoon after school, serving coffee and sandwiches, and presenting an original little program. It dealt with thrift, and included a fashion show in which children in made-over garments paraded, danced, recited original verses about their clothes and what they were made from, and by plays, drills, and various means impressed the idea strongly that expense and attractively dressed children do not mean one and the same thing. As most of the little made-over costumes were worn by children of high-salaried men or prosperous business or professional people, it may have proved a helpful lesson to the more extravagant and poorer class.

Aided the Teachers.

Last year the teachers of Pittsfield engaged in a united effort to secure higher salaries. The cost of living is as high here as in Boston, but salaries remained at less than eleven hundred dollars, and there was a resultant lessening of enthusiasm, and in some cases considerable discontent. While the campaign for an increase was going on the P. T. A. took up the matter. Nearly all the members are taxpayers, or would be affected by a general rise in the tax rate, yet they voluntarily circulated petitions among themselves and among heavy taxpayers outside the society, and prepared long lists of names showing what people advocated more pay for their children's teachers—or for any children's teachers.

When the board met to act upon the matter it was a stormy night. A Berkshire blizzard was in operation, and all trolley cars and taxis had ceased to function. But Mrs. A. W. Pierce, the first president of the Dawes P. T. A. and one of its active members, walked a mile thru the snow to be present at the meeting and display her petitions. The result was a raise of \$150, with the promise of \$50 more each year till \$1,500 should be reached. The school board, far from being annoyed by this action, was much gratified at learning the sentiment of the public whose money it had to expend. When taxpayers demand more money for teachers, school boards are not unwilling to comply.

I hope I have shown convincingly some of

(Concluded on Page 121)

Supervisory Conference After Supervision

Superintendent H. O. Dietrick, Kane, Pa.

From the days of Socrates and Quintilian to this good year* of 1920 numerous voices crying in the educational wilderness have proclaimed the need of greater efficiency in teaching and constructive elements in the classroom. This gospel has been regarded by most of us as part of our pedagogical treasure and laid it away very carefully "where moth and rust do not corrupt." However, now comes the clarion call, "Repent, for the Day of Judgment is at hand; bring forth fruits worthy of repentance, and say not within yourselves, 'We have Abraham to our Father.'" This call reminds us of the fact that we no longer dare tolerate the old type of supervisor, who, when he made his rounds, found his men digging holes, all diligently at work at the bottom of the same hole, when he said, "How many of 'yez' are down there?" They replied, "Seven"; whereupon he said, "Then half of 'yez' come out."

I confess that in the treatment of this topic or phase of supervision, I have no panacea to offer. However, even today we do find that we who supervise make just as impractical requests of those whom we supervise as the gang foreman did of his men. We have already been told who is to supervise, how often he is to supervise, what he thinks of the teacher, what he tells the teacher before she teaches, so that it remains for me to tell what happens, or at least what should happen, after all this supervisory compound. It is something like the physician who has taken all the preliminary steps in locating a deep-seated trouble. Should he stop after he has collected all the available data concerning the case no results or benefits would be derived. He must now diagnose and prescribe. The first statement, then, I wish to make is, that an after conference should be diagnostic and remedial. Now there are two kinds of conferences, viz., (a) Group Conferences and (b) Individual Conferences.

In Terms of the Child.

If supervision makes its contribution to the education of the pupils who are being taught thru the work of the teacher who teaches under supervision, then it follows that the supervisor in the public schools must improve teachers in service and secure efficient teaching results. On the other hand, if the purpose of the schools is to administer to the needs of the children, then the supervisors must see their responsibility, and that they meet this responsibility. In other words, we must think in terms of the child instead of terms of subject-matter. I hear you say, "Well, well, that is the same old theory which we have been hearing for the past twenty years." Perhaps it is, but the fact that both teachers and supervisors express relief when a child who is not "getting on" in the subject drops out, is a definite indication that the subject is more important to them than the student. This is entirely contrary to the principle stated, that the school exists for the child.

Accepting this principle as sound, then it follows that the teacher exists for the child. From these few statements we may now infer that the supervisor exists for the sake of the teachers who work under his direction, and for the sake of the pupils who work under the direction of the teachers. However, the supervisor can not secure the progress desired, on the part of the pupils being taught, without securing the desired progress in teaching on the part of the teachers. Therefore the efforts of the supervisor should be centered upon teaching performances of the teacher principally as a means of accomplishing definite results.

Having clearly in mind the purpose of the school, the work of the teacher, and the business of the supervisor, I am ready to refer to one of my previous statements, that an "after conference" should be diagnostic and remedial. In other words, supervision must supervise. It must assume leadership. If experience has taught us anything it is that where supervision is close and healthful, the schools are good. This implies, then, that supervision can be close and healthful only, where there is co-operation between supervisors and teachers.

This leads me to another previous statement, that there are two kinds of conferences, (a) Group, and (b) Individual. On these after conferences hinges the essence of supervision. What, then, should these conferences be like? We all know that some technique, even tho it may not be very definite at times, and perhaps is best not to be too definite, should be applied in the conducting of these conferences. The following points may well be taken as a safe guide for conferences, viz.:

1. Group Conferences.

1. Meet the teachers at fixed times and for a definite purpose.
2. Make the teachers feel that the conference is an opportunity, and not just a requirement.
3. Encourage the teachers to raise the problems that have come to them in their work.
4. Throw each individual's problems open for free discussion by the group. Stimulate the exchange of ideas and comparison of experiences in dealing with the questions.
5. Present general suggestions and constructive criticisms in the form of questions based upon data accumulated during classroom visits.
6. Stimulate discussion of the suggestions and criticisms, so that the teachers themselves determine the correct answers and formulate the procedure that should be followed in setting up more efficient practices.

2. Individual Conferences.

1. Encourage the teachers to come individually to talk over their difficulties and to consult for advice on special problems.
2. Encourage the teachers to come for individual conferences regarding the written notes and comments made on particular recitations. Stimulate the teachers to answer the problems that are based upon these written data so that they become their own critics. One of the important outcomes of supervision should be to make the teachers critical of their own performances.
3. Present specific suggestions and constructive criticisms in the form of questions and problems based on the above data.
4. Encourage the teachers by specific suggestions to take the initiative in discovering and solving problems of teaching. (Nutt.)

Whenever we think in terms of a supervisor as described to you in *Who Should Supervise?* we may safely call them Scientific Supervisors. This term Scientific will include the term Functionalizing. It seems to me that this term covers everything that an after conference should include. Wherever we have a Functionalizing Supervisor we find co-operation between supervisor and teacher. This brings out the keynote in an after conference, viz., Co-operation. Co-operation is constructive, not destructive. It is opposed to hypercriticism, anemic action, and self-interest. It is furthered by organization, as opposed to mere routine. It calls for manifestation by action, as opposed to mere acquiescence

in policy and the factors in co-operation involve the working together,

- a. with a common object,
- b. on a pre-determined plan,
- c. in a pre-arranged organization,
- d. with active interest.

Now whatever the common object may be,

- a. the direction of co-operation should be clearly defined beforehand,
- b. the extent should be limited.

The formulation in advance of a pre-arranged plan of action calls for,

- a. a definite schedule.
- b. a practical system of dispatching.

Concerning the active interest I might say that it must declare itself in words and back up its expression by action. Action of the kind typified by the Quaker who expressed his sympathy for a family, whose head was killed, by saying, "I am sorry five dollars' worth. How sorry are you?" This is the kind of interest co-operation demands.

So in co-operation the supervisor must not only "work with the teachers," but must "work with the teachers" to promote the object. If the object of an after conference is functionalizing, then the conference must deal largely with performances, for functionalizing separates planning from performing. This implies that the specialist who plans must teach the specialist who performs. It is by this latter factor—that of teaching—that remedial measures may be put into force, and that a teacher may realize her capacity.

Views of Teacher's Efficiency.

There are at least four views of a teacher's efficiency: (1) what she thinks her ability to be; (2) what her associates think it to be; (3) what those over her think it to be; and (4) what accurate measurement determines her actual capacity to be. The after conference must bring to the surface the last one of the four views. Otherwise no definite remedial measures can be put into practice. An experienced teacher may have the habit of using a wrong method or device or some other technique, while an inexperienced teacher may not know anything about devices and technique. An after conference must bring out the actual capacity for both types.

In no part of a supervisor's work is more skill required than in the after conference when he teaches a teacher how to teach. This can only be done by showing the teacher her real capacity, which, in turn, can only be accomplished by having at hand such data as was collected concerning her actual performances. Unless the supervisor has this data he can not deal with the situation in a large way, and he loses his opportunity for real leadership.

It now follows from view number four, of a teacher's capacity, that the supervisor must have some definite outline concerning the teacher's performance from which he may draw his conclusions. This has already been presented to you in a previous paper. A supervisor, to come to an after conference without some definite plan of bringing to the surface real capacity and right performances for his teachers, is as useless as a pocket dynamo would be to a city lighting system, all he could do would be to whirr and purr. Few spectacles are more pitiless than a man or woman of this type at the head of an after conference, without anything to say but to tell his teachers that they must be on time, must attend to their registers, etc., etc., or that they have failed to cover arithmetic according to prescription.

The one aspect of the teacher's work in which she meets many difficulties and in which she looks most of all to the supervisor for material assistance is that of teaching subject-matter in particular subjects. The teacher may not realize that the point of difficulty is one primarily of method, device or technique. For this reason the after conference must make a difference in the teacher's ability to meet problems.

The after conference must be a clearing up for difficulties. It must be democratic. There must be a definite plan the purpose of which all understand. If there is to be anything new to be presented it is wise to do so by typewritten form. Wandering discussions get nowhere. Each one should feel that she plays a distinct part in the conference, that she has some definite contribution to make, or some new idea to imbibe. The conference must socialize.

Democracy in classrooms will not result from aristocracy in conferences. Teaching by example remains the most powerful type of teaching, and the supervisor is, to all intents and purposes, a teacher. The after conference is the very best medium to teach teachers. What I have said concerning definite data and outlines should not be construed into formality. Supervision loses its greatest opportunity when it aims only at conformity.

Previously I stated that the supervisor's concern was with teachers and their reactions upon the pupils. It is in the latter phase of supervision that the teacher's ability can best be brought to light. In doing this it might be well to suggest a few points to be borne in mind, viz.:

Points to be Borne in Mind.

1. Mastery of the principle of method: The crucial point to be remembered here is, Does the teacher have an intelligent conception of what the minds of the pupils are doing in learning? It is here that the after conference must play a master hand. For mere observation in the classroom will not reveal this. Critical discussion after the recitation as to what the teacher expected to happen, and what actually did happen are necessary in making an accurate measure of her ability.

2. Intelligence and resourcefulness in selecting and adapting devices: The supervisor must get into the thinking of the teacher and find out why she made this selection or that selection of devices, this modification or that modification under a given situation. The accidental successes or failures can only be discovered when checked up in an after conference and analyzed.

3. Definiteness of lesson planning and skill in following the plan: This can only be discovered in a reliable measure by the supervisor knowing the teacher's thinking about the purposes the teacher is trying definitely to realize.

4. Skill and reliability of technique: Here the after conference must show the teacher how to adapt the technique to suit conditions, rather than follow typical forms as outlined.

5. Ability to secure desired results: The manner of reaction of the pupils must be brought to the after conference for diagnostic purposes.

Let us not forget, in spite of what I may have said, that the revolutionary doctrine of scientific management stated in no uncertain terms that the supervisor has the largest share of the work in determination of proper methods. The burden of finding the best methods is too large and too complicated to be laid on the shoulders of the teachers. The primary function of the supervisor must be guidance, that is, the giving over into the hands of his teachers the best methods of procedure. In doing this the after conference must have a stock of scientifically formulated data.



CALVIN N. KENDALL,
Commissioner of Education for New Jersey, who will preside at the annual convention of the Department of Superintendence at Atlantic City.

The Better Methods Must Prevail.

The time for general principles is past. The day of repentance surely is at hand, and the best answer I can give to my topic, or phase of this supervisory task, is that the supervisor must confine his efforts to careful scientific studies of the relative efficacy of the different grades of a system. When these studies show, clearly and unmistakably, that certain methods are producing distinctly better results in certain grades than other methods are producing in others, then the group of better methods should be definitely prescribed for the use in all grades or steps, and the group of inferior methods must be forbidden. Again from the better group of methods the supervisor should assign one to a certain division or grade, and another to a different grade, and so on up the line.

Now this seems experimenting, and you may say that schools should not be used for experimentation. In answer let me state that such a method would not be for experimentation, but for the purpose of getting results. On the other hand, it is only the school systems that have practical experimentation going on that have a basis for necessary determination, and that can separate the poor methods from the good.

Only such schools have their doors open as wide as possible for every kind of work that looks toward further advance. Such a school cuts off all avenues for experimentation downward, and opens up all avenues for advance. Such a school is able to say, "The use of methods that have been proven inferior to these later standardized ones is hereafter forbidden. You are, however, encouraged and will be rewarded for taking the range of methods to which efforts are now limited and perfecting them still further."

This would be natural, not artificial experimentation. When a supervisor guides a teacher, in an after conference, to follow certain methods prescribed by a university, then the work becomes artificial. The methods of teaching under scientific supervision dare not be devised in response to theories of education. They must be the result of active experience in getting work done most successfully. This becomes the task of the supervisory after conference.

A Fuller Scientific Attitude.

Responsibility for finding the best methods rests upon those who are responsible for conducting the work. The supervisor in a public school system has at hand the best means by which the poor methods can be separated from

the good, and also has at hand the most wonderful opportunity for guidance in such work—the after conference. Think of what our state department might contribute to educational progress by gathering the results of such wise guidance and experimentation, formulate it into usable form and distribute it thruout the state by means of a bureau of supervision.

To all who are professionally alert there is a distinct lack of something in our various means for teacher improvement such as teachers' institutes, teachers' meetings, educational lectures, and even summer schools. I can express this lack of something by no better word than vitality.

It seems to me, therefore, if in our supervisory training of teachers, we wish to develop a fuller scientific attitude toward educational problems and procedure, a more scientific atmosphere must be thrown about all educational procedure. So long as education is mostly empirical and the empirical deductions of supervisor and teachers are different, in so far as the supervisor actually directs the methods of the teachers, his direction appears, in large measure, personal and arbitrary. It seems to me that the primary task of the supervisor is to discover the educational law and apply it thru the labors of the teacher, while on the other hand the teacher should find the controlling scientific law thru co-operation with the supervisor.

A supervisor must, thru the after conference, centralize direction and yet keep the total organization fully alive in every unit of its being. So long as the teacher uses standard methods or better, and accomplishes standard results or better, there is no need of supervisory interference or supervisory direction. However, teachers can not be allowed to follow caprice in method. When a method which is already superior to all others has been discovered, it alone can be employed. It is here that the supervisor in the after conference must be felt. He must functionalize.

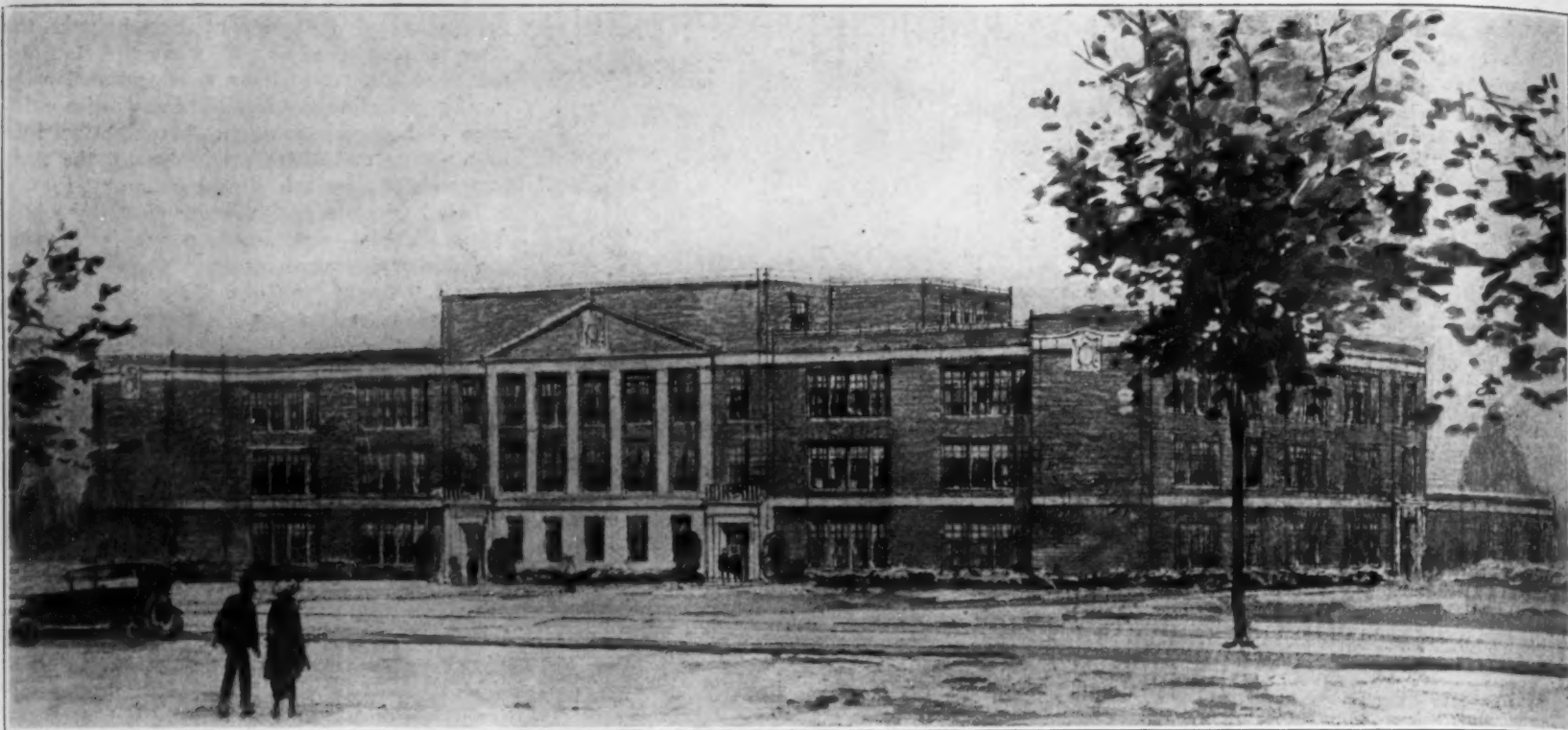
I have used the terms functionalize and functionalization several times, and due to the fact that the latter term is not in the dictionary, it might be well for me to explain just what I mean by these terms. The supervisor functionalizes when he sees to it that each teacher is relieved of everything for which she is not fitted to do, according to exact and scientifically derived methods. The effect, of such a supervisor, upon the work itself is that quantity will be increased and quality maintained; while the effect upon the teacher herself will be that she is assured of reaping her own harvest.

The greatest obstacle seems to be, not the complexity of the problems, nor the lack of technique, but rather the inability of school people to co-operate and a lack of a desire to co-operate. The schoolman is necessarily an intellectualist; and he dislikes nothing so much as to sink his personality into a co-operative task where he is not the leader. The result is, that in our school systems, normal schools and universities we find a low, primitive organization, direction and management. All this stands in the way of any large co-operative task.

Again let me repeat that the keynote of supervisory conferences is functionalization, and that this in turn includes co-operation; that it is the business of the supervisor to convey to his teachers the best results of the latest methods or standards; that the school must be made a laboratory; that methods, devices, and standards must be kept on the upward move and that the supervisor must follow scientific business principles in establishing standards.

Individualistic, intellectualistic, low and primitive organization must give way to a large co-operative organization. This, then, is the

(Concluded on Page 122)



INTERMEDIATE SCHOOL NO. 2, BUFFALO, N. Y. Designed by Esenwein & Johnson, Architects.

The Buffalo School Building Program

E. C. Hartwell, Superintendent of Schools, and William B. Ittner, Consulting Architect, St. Louis, Mo.

THE BUILDING PROGRAM.

By Mr. William B. Ittner.

The reaction resulting from the general school housing shortage thruout the country is finding its greatest impetus in many of the larger cities where school-building programs running into the millions are either in contemplation or already launched. The importance, then, of serious study and wise and economical planning must be apparent if educational results commensurate with large expenditures are to be attained. Adequate schoolhousing has always been a problem even during normal times. This has been especially true in our larger cities and the rapidly growing industrial centers. The problem of adequate accommodations at the present time, due to the ban on building during the war, the increased enrollments, the demands for increased facilities and the excessive building costs, together with bonding limitations, seems almost impossible of solution except thru extraordinary expenditures, increased use of school accommodations, more skillful planning, better organization and administration.

Among the large cities preparing to meet its school housing problem in a well considered and comprehensive manner is Buffalo, N. Y. Here an appropriation of \$8,000,000 has been made and eighteen school buildings will be erected. Twelve of these will be intermediate, or junior high schools of a typical plan, three elementary schools, also of a typical plan, two additions to elementary schools, and one primary school. Undoubtedly the sum appropriated will be found insufficient to complete the entire program by reason of the increase in the cost of labor and material since the appropriation was made.

The Cooperative Plan.

For carrying out the architectural work of this notable and extensive building program, the board of education has employed Mr. William B. Ittner of St. Louis as consulting architect, while a cooperative association of local architects, known as Associated Buffalo Architects, Incorporated, has been employed to carry out the plan production and supervisory service.

Altho it is authorized under its articles of incorporation to engage in business as architect and designer of buildings of all kinds, this association was organized primarily for the purpose of affording the board of education a convenient means of utilizing the local professional talent and facilities.

All of the 35 members are practicing architects, many of them partnerships, so that the number of individuals who are thus associated is about 50. The governing body is a board of directors of seven men and from this board, an executive committee of three is chosen. This committee has direct charge of the professional operation of the central office of the association and control over such architectural work as is assigned to the membership offices.

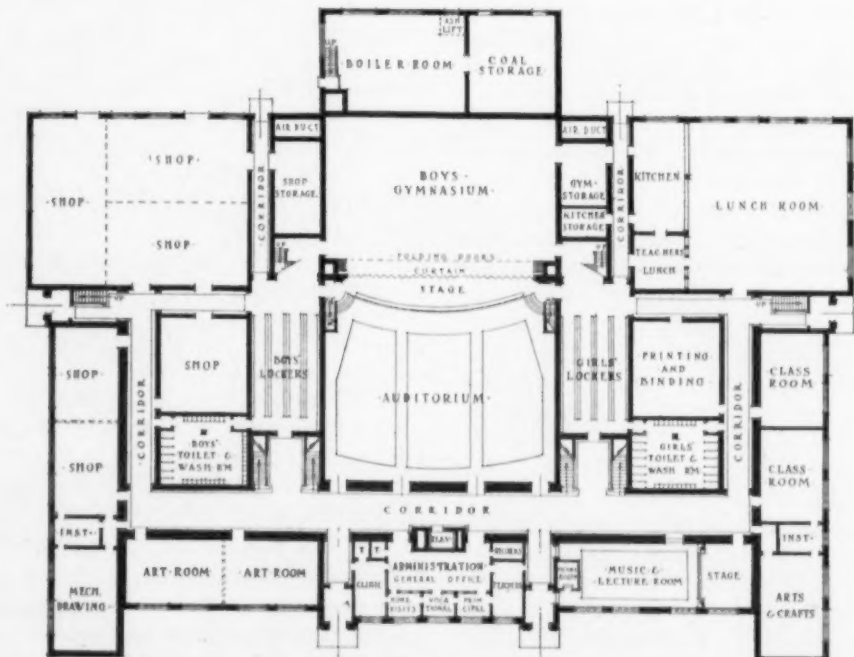
All finished plans and specifications will issue as the product of the Associated Buffalo Architects; thus individuality of the members is merged into the collective achievement of the

association as a whole. Contact of the association with the board of education, with the consulting architect, and with contractors is thru the central office. Under the direction of the consulting architect this office prepares standardized details of construction, the first or key plans of a group of similar buildings, all specifications and all engineering data, and controls all supervisory service.

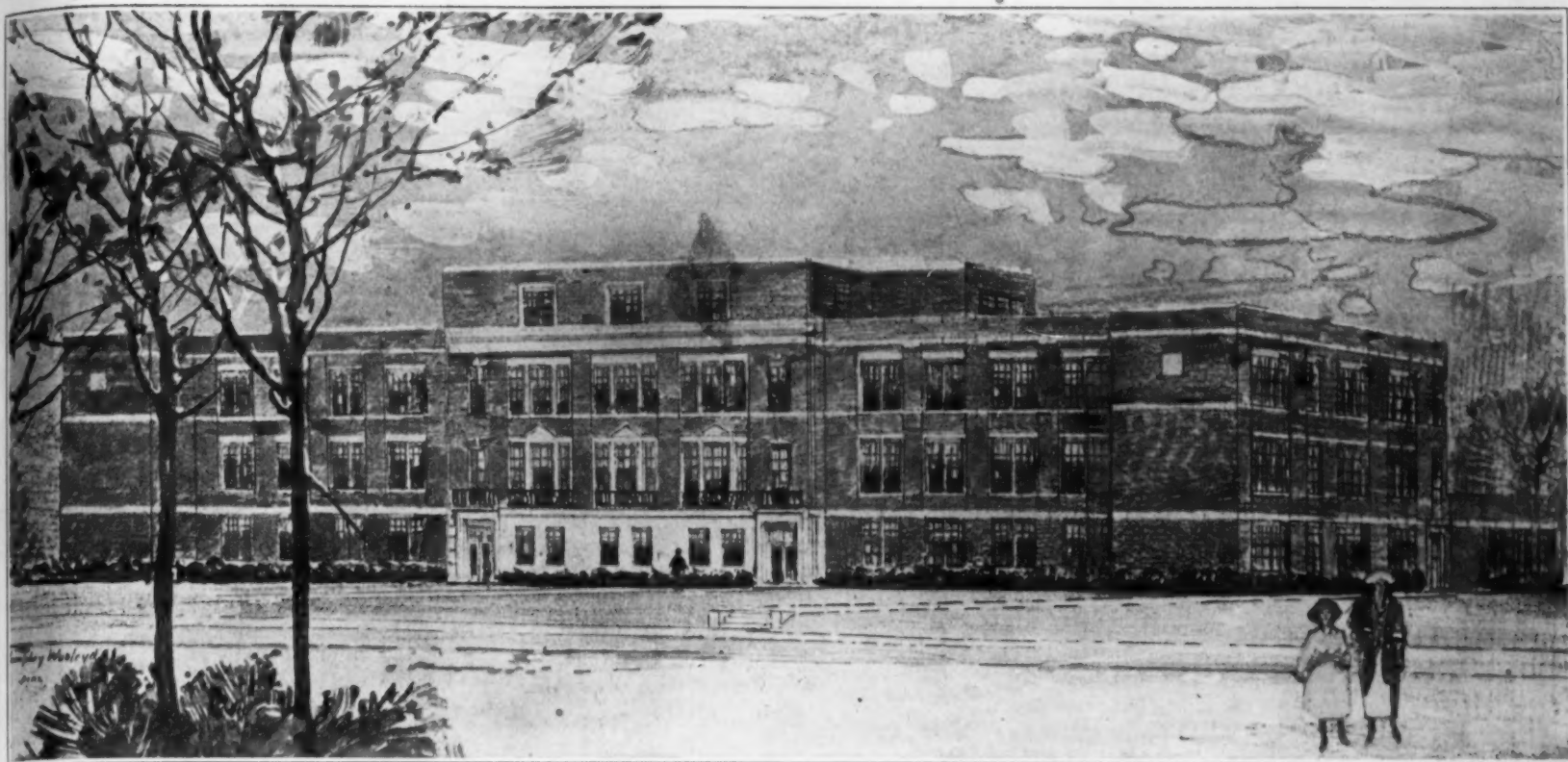
The Buildings.

The plans for the new intermediate schools of Buffalo have been worked out with due consideration for those principles and objectives which are guiding the reorganization and development of secondary education in the United States.

To make such definite and progressive educational steps possible, a new type of building must be devised, one that will fit in more intimately and correctly with the curriculum. This has been accomplished in a marked and satisfactory degree in the twelve new intermediate



GROUND FLOOR PLAN, TYPICAL INTERMEDIATE SCHOOL, BUFFALO, N. Y.
Associated Buffalo Architects. William B. Ittner, Consulting Architect.



INTERMEDIATE SCHOOL NO. 10, BUFFALO, N. Y.
Designed by Colson & Hudson, Architects.

school buildings proposed. Moreover, as maximum economy in school buildings means the use of the plant all of the time, these buildings have been planned for the widest community, as well as for continuation-school uses; in short, the buildings designed for the Buffalo plan offer every opportunity for the wonderful advance in educational methods and practice which has been determined as highly essential in our educational system.

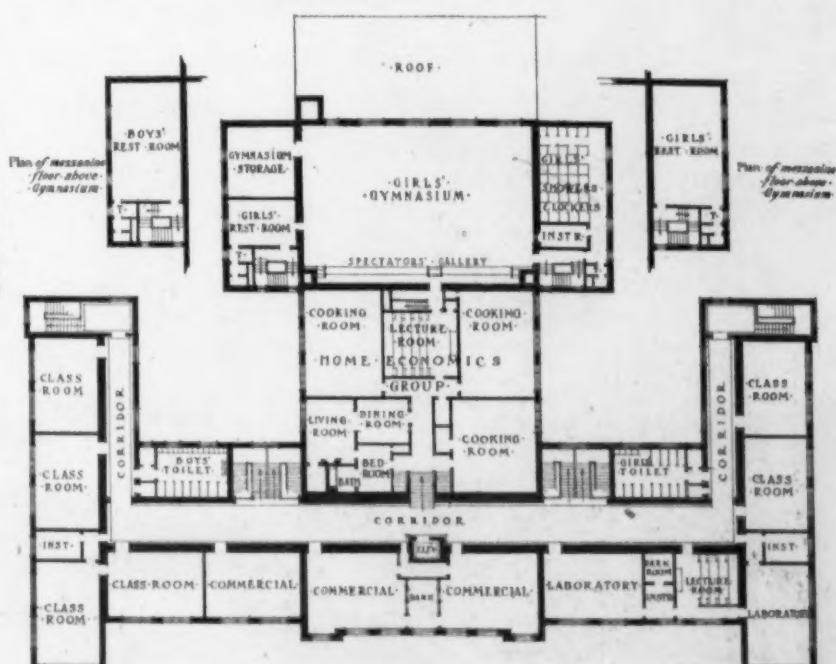
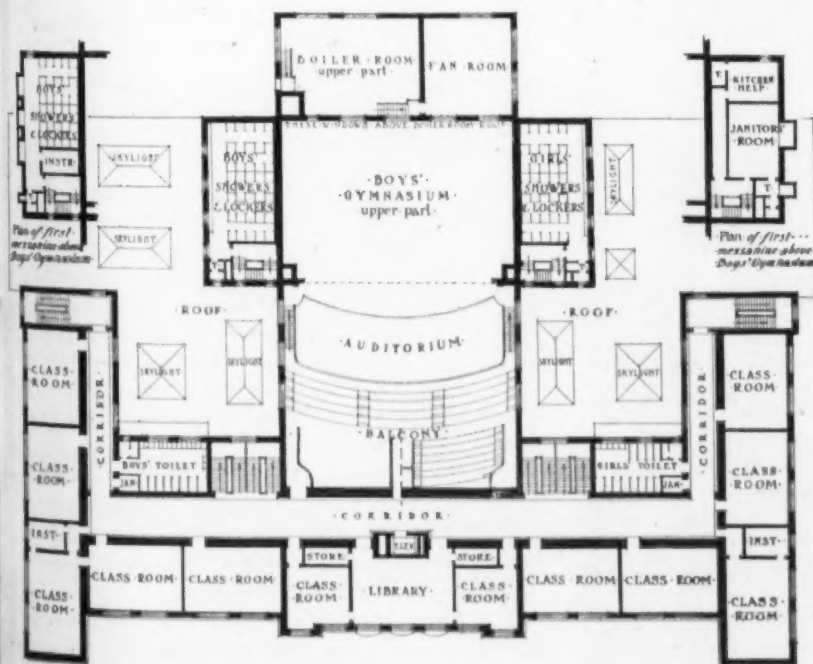
A brief description of the buildings and their organization will serve to bring out the method used to accomplish this result and the educational advantages of the plan.

First of all, the school basement has been eliminated; all rooms are brought to grade and provided with adequate light and air. In addition to this, the plans are all of the open type, insuring maximum sunlight penetration and their sanitation, therefore, should be beyond question.

By reason of the fact that the floor space in all buildings is reduced into comparatively small areas, the disposition of stairways, corridors and



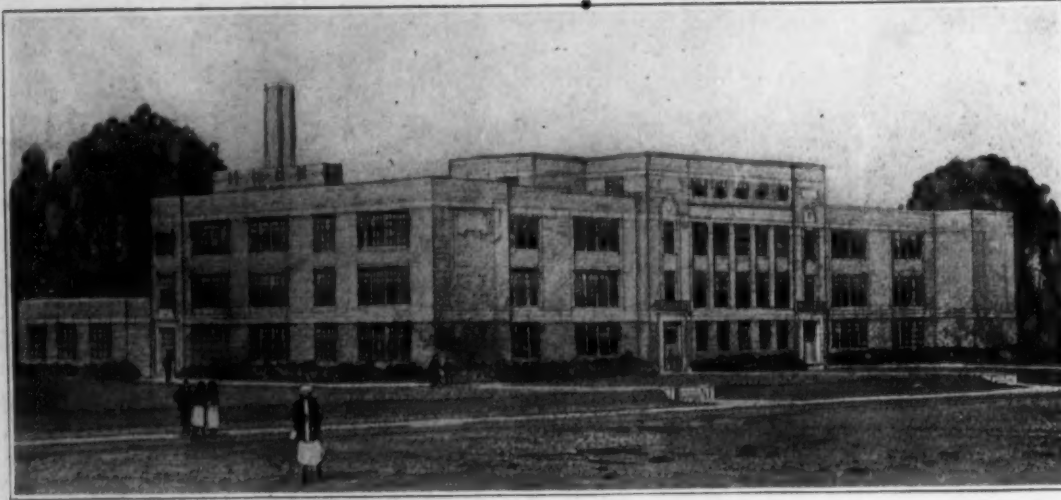
INTERMEDIATE SCHOOL NO. 7, BUFFALO, N. Y.
Designed by North, Shelgren & Swift, Architects.



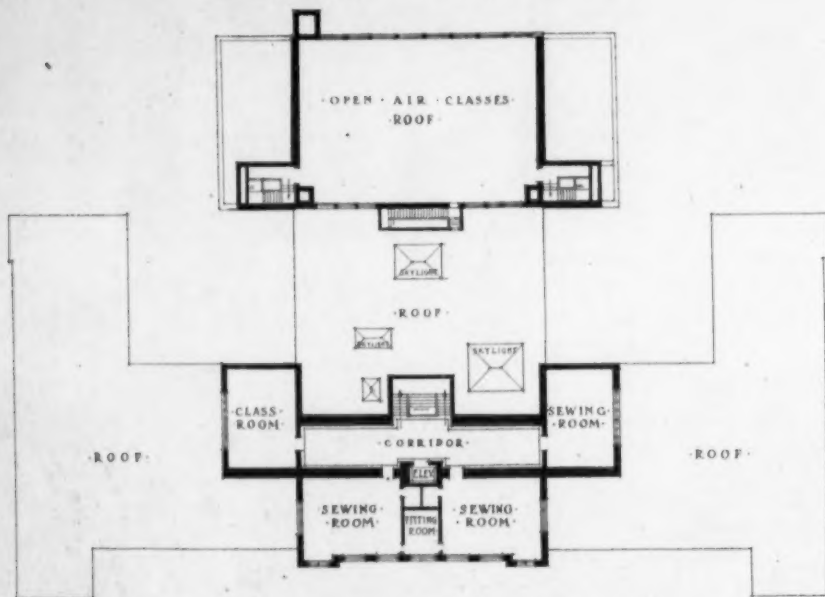
FIRST FLOOR PLAN, TYPICAL INTERMEDIATE SCHOOL, BUFFALO, N. Y.

SECOND FLOOR PLAN, TYPICAL INTERMEDIATE SCHOOL, BUFFALO, N. Y.

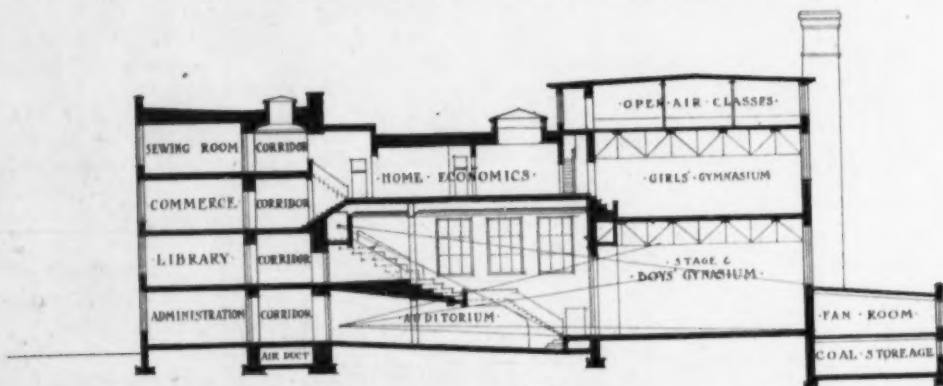
ASSOCIATED BUFFALO ARCHITECTS, MR. WM. B. ITTNER, CONSULTING ARCHITECT.



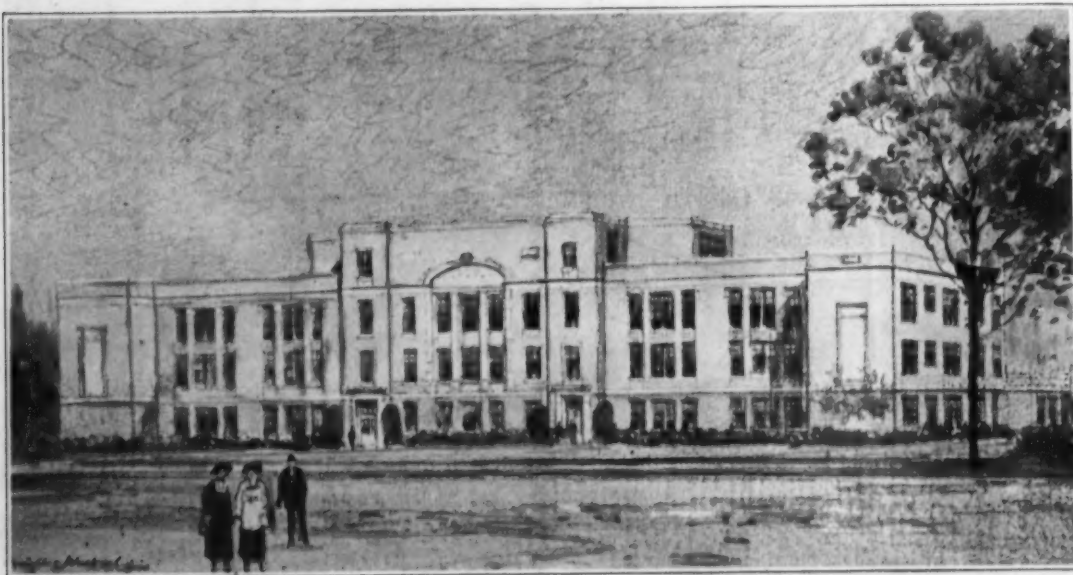
INTERMEDIATE SCHOOL NO. 8, BUFFALO, N. Y.
Designed by E. B. Green & Son, Architects.



THIRD FLOOR PLAN, TYPICAL INTERMEDIATE SCHOOL, BUFFALO, N. Y.
Associated Buffalo Architects. Wm. B. Ittner, Consulting Architect.



SECTION OF TYPICAL INTERMEDIATE SCHOOL, BUFFALO.



INTERMEDIATE SCHOOL NO. 5, BUFFALO, N. Y.
Designed by Wicks & Hopkins, Architects.

exits, the location and disposition of the audience and vocational rooms, coupled with the fact that the buildings are of fireproof construction and the boiler rooms located outside of their main walls, the buildings will be fundamentally safe.

The Large Intermediate Units.

Each of the larger buildings has a capacity of 1,200 pupils. For the academic subjects, 22 classrooms are provided and specially arranged for the laboratory method. For science and hygiene there are four laboratories, two of which are lecture rooms equipped with amphitheaters.

For commercial work each building will have a group of four rooms, including penmanship, bookkeeping, stenography and typewriting, also a bank which is arranged as a thrift center for the school.

Seven rooms are provided for the practical and domestic arts for girls. The group is located over the auditorium and the central part of the building on the upper floor and correlates with the girls' gymnasium, the open air quarter and a general lecture room. The group includes sewing, millinery, cooking and home-making, and in addition to these there are two art rooms, one for freehand drawing and one for the arts and crafts.

The shops for boys are all located upon the ground floor. Provision will be made to care for small prevocational groups covering a variety of vocations. The widest flexibility in this regard will be possible under the plan, for the reason that the available floor space is to be divided by movable partitions which may be adjusted to varying needs. Ordinarily provision for such prevocational activities as mechanical drawing, printing, woodworking, painting and finishing, metal and electrical work will be included.

Music and public speaking are provided for in a room with seating capacity of 150, arranged with a classroom stage and provision for visual instructions. This room is so planned as to make its use possible also by small community groups.

Physical training is provided for in two gymnasiums of standard size 50 by 80 feet, each arranged with dressing booths and shower baths. This accommodation may be supplemented by open-air facilities over the gymnasiums at those schools where it is deemed advisable to install it. These facilities will also be suitable for out-of-door classrooms.

The auditorium is located upon the ground floor with balcony opening to the second floor. It will accommodate the entire school. An unusual feature of the auditorium is the provision for ease of circulation between balcony, ground floor and stage. This is accomplished by two stairways, one on each side, leading from the balcony to the stage and auditorium exits. The unusual feature of the stage is the provision for its enlargement by the addition of the boys' gymnasium. They are both on the same level, but separated by a curtain and a folding door partition which, when thrown open, gives a stage 65 feet in depth. This affords opportunity for indoor games, large choruses and other school or community functions rarely possible in school buildings.

A cafeteria accommodating 250 pupils is located upon the ground floor and planned to function with the auditorium and gymnasiums in promoting the social features as well as the community uses of the school.

The administrative rooms are located between the main entrances upon the ground floor and include rooms for the principal and his assistants. Rest rooms for both pupils and teacher,

as well as a clinic and teachers' workroom are included in the administrative group.

The Small Intermediate Schools.

The plans for the two small intermediate school units differ from those of the large units only in the fact that they make provision for 600 instead of 1,200 pupils each. The plan, however, is expandable to the larger units. The auditorium has been reduced to accommodate 800 pupils and the gymnasium has been reduced to a single room divided by a folding partition and arranged for two classes. The provisions for special work are similar to those in the larger units. The facilities, however, are more limited.

The Elementary Schools.

The plan for the elementary school building is an expandable one. It provides for twelve classrooms, an auditorium seating 500, a large gymnasium arranged with folding partition, all administrative rooms and the mechanical plant in the initial building. Altho the original plan for the elementary schools includes only twelve classrooms, provision is made for expansion to 30 classrooms.

The plan, tho compact, is largely an open one, thus insuring maximum sunlight penetration, and is capable of a wide range in individual treatment. The building has been limited to two stories above the ground or lower floor, and the latter will be entirely above grade.

The introduction of the auditorium, together with the rooms devoted to recreation, enable the more extended use of the plant as a community or recreation center.

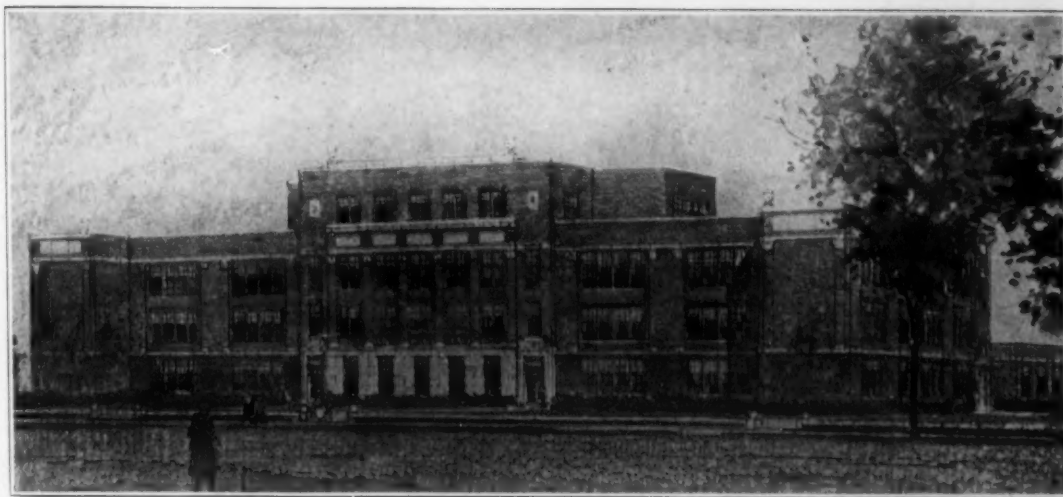
Standardization.

In a program involving a considerable number of buildings all of the same character and finish, an unusual opportunity for economical construction as well as economical upkeep is presented, and full advantage has been taken of this opportunity. The buildings, therefore, have been standardized in their plan, construction and finish, to the end that thru such duplication minimum costs may be attained. This standardization has not been carried, however, to the exterior treatment of the buildings, except as to the general style adopted. Each one of the buildings has been designed by a Buffalo architect, working within the limitations fixed by the consulting architect, and in spite of such limitations, each building has been given an architectural individuality.

Plan Production.

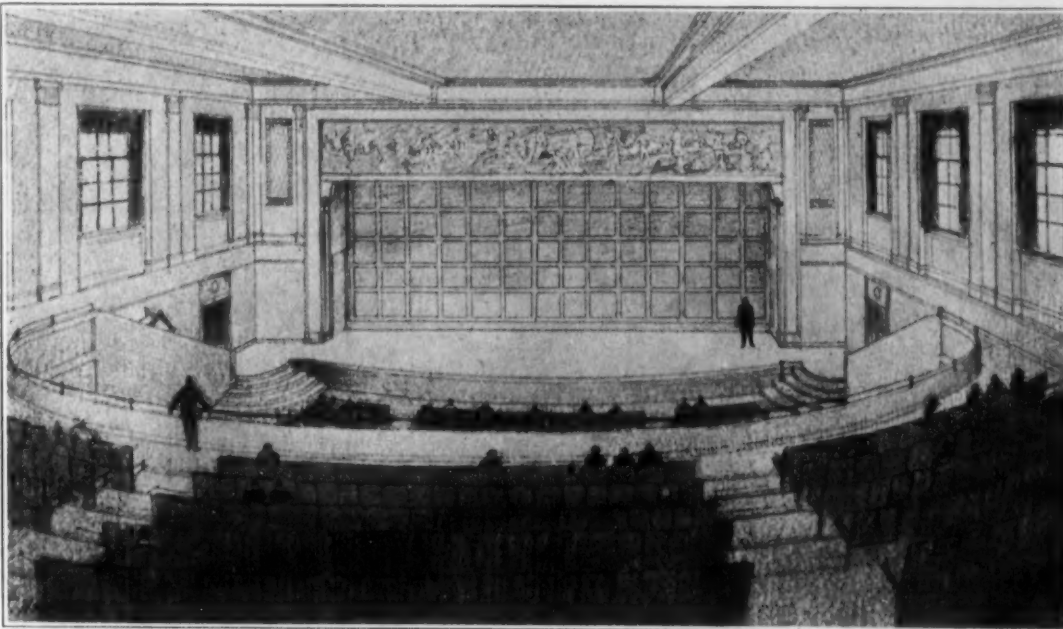
In the preparation of the plans for the school buildings, the school board has had the advantage of the counsel and advice as well as the office organization of all of the architects of Buffalo whom it has employed to carry out the plan, production and supervision service of this project. The cooperation of large professional groups was not uncommon during the war. Never before, however, has there been an instance where all the men in a profession in any city have banded together so earnestly and enthusiastically to work out a problem of common interest so successfully as has been done at Buffalo. This architectural and engineering work, tho of great magnitude, is now nearing completion. School administrators are watching its development with a great deal of interest and its success will make a notable contribution to education and the field of school architecture, the influence of which will be felt thruout the country.

The affairs of the central office of the Associated Buffalo Architects are conducted by its officers, Charles S. Wood, president; Franklin J. Kidd, vice-president; H. Osgood Holland, treasurer, and Duane Lyman, secretary. Besides acting as treasurer of the organization, Mr. H. Osgood Holland is in charge of the mechanical engineering of the program.

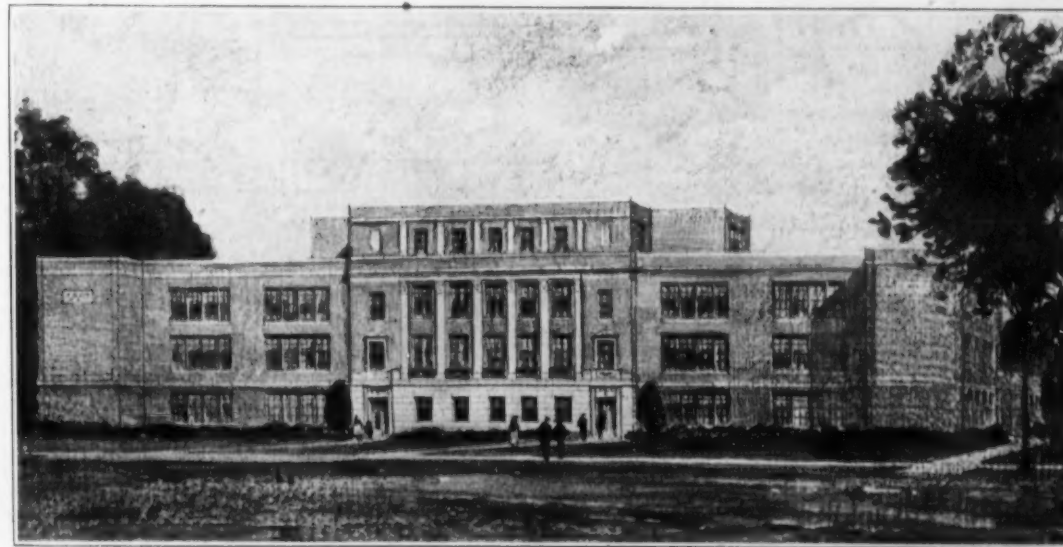


INTERMEDIATE SCHOOL NO. 6, BUFFALO, N. Y.

Designed by the Central Office, Buffalo Associated Architects, and used as key design by the membership offices.



TYPICAL AUDITORIUM, INTERMEDIATE SCHOOLS, BUFFALO, N. Y.
Associated Buffalo Architects.



INTERMEDIATE SCHOOL NO. 4, BUFFALO, N. Y.

Designed by Louis Greenstein, Architect.

THE EDUCATIONAL PROGRAM.

E. C. Hartwell, Superintendent of Schools

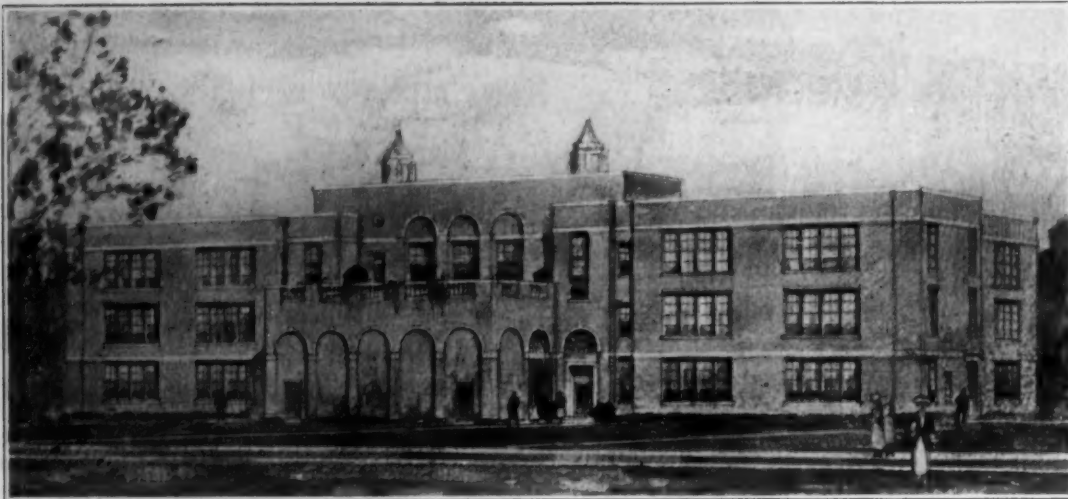
It is the purpose to so locate the 12 junior high schools thruout the city that no pupil in the seventh, eighth or ninth grades will reside more than a mile from the school.

The schools will be operated on a two-session plan, having in mind that most of the pupils attending will go home for their midday meal.

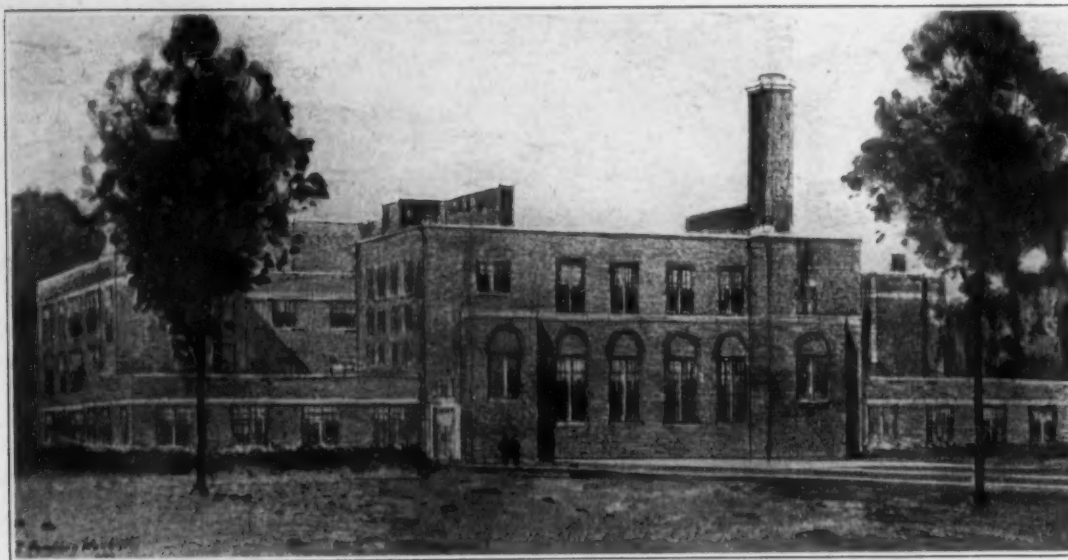
The schools will provide departmentalized work; a widely expanded course in physical education; promotion by subject rather than by grade; an adaptation of educational method to

the special needs of adolescence; and an extensive program of prevocational training. Sixty minutes daily for every boy and girl in attendance will be allowed for physical education, including regular gymnasium work, games, physical examinations, and corrective exercises. The physical development and progress of the pupils in these schools will receive the same careful attention that is given to their mental progress.

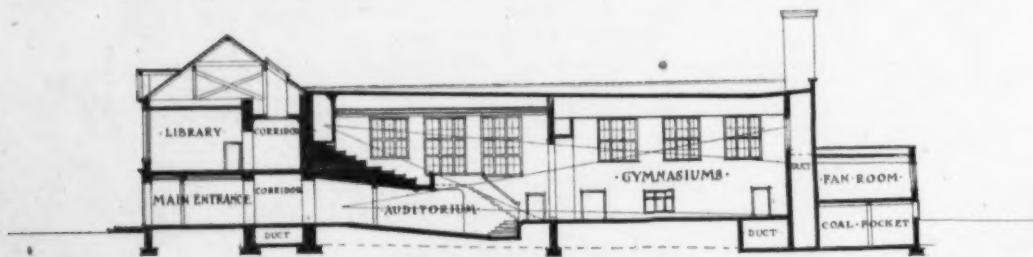
There will be a vocational guidance department in each school, with a trained advisor for the boys and another for work with the girls. It is planned to have a wide variety of "try-



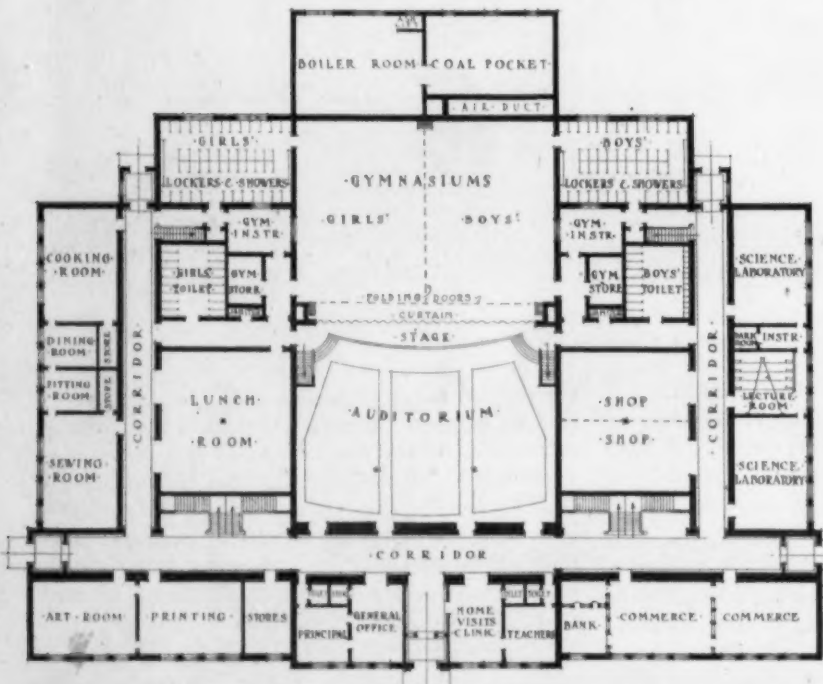
ELEMENTARY SCHOOL NO. 7, BUFFALO, N. Y.
F. J. & W. A. Kidd, Architects.



TYPICAL REAR VIEW, INTERMEDIATE SCHOOLS, BUFFALO, N. Y.

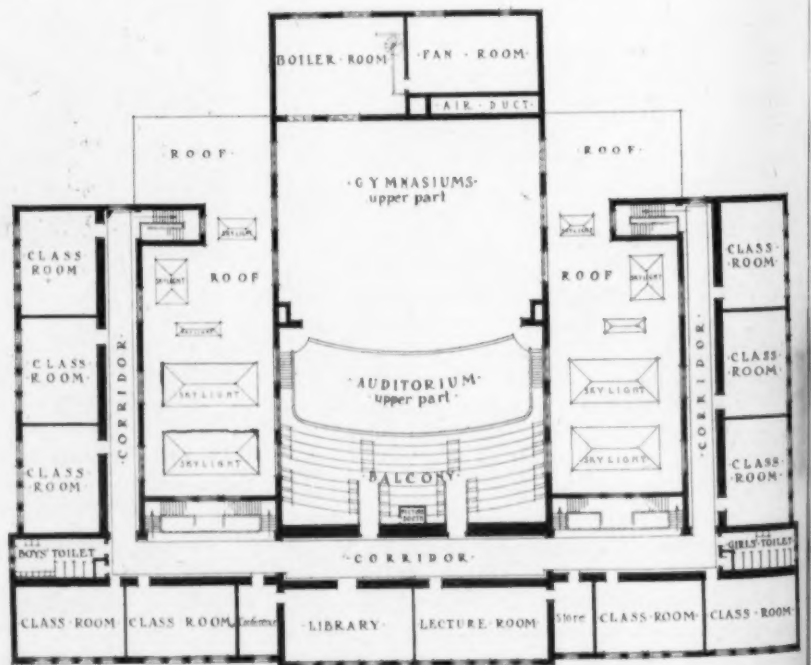


CROSS SECTION, SMALL INTERMEDIATE SCHOOL, BUFFALO, N. Y.



GROUND FLOOR PLAN, SMALL INTERMEDIATE SCHOOL, BUFFALO, N. Y.

Associated Buffalo Architects; William B. Ittner, Consulting Architect.



FIRST FLOOR PLAN, SMALL INTERMEDIATE SCHOOL, BUFFALO, N. Y.

out" courses to which the pupils of these schools will be exposed for the purpose of endeavoring to discover their natural tastes and aptitudes.

Each classroom is a laboratory in itself. Classrooms are especially designed for each subject with reference books, maps and other necessary equipment immediately at hand.

The dominating ideals and purpose of the school is to teach pupils how to study rather than to hear recitations. Home work will not be required, except possibly in the languages or in one or two electives in the ninth grade.

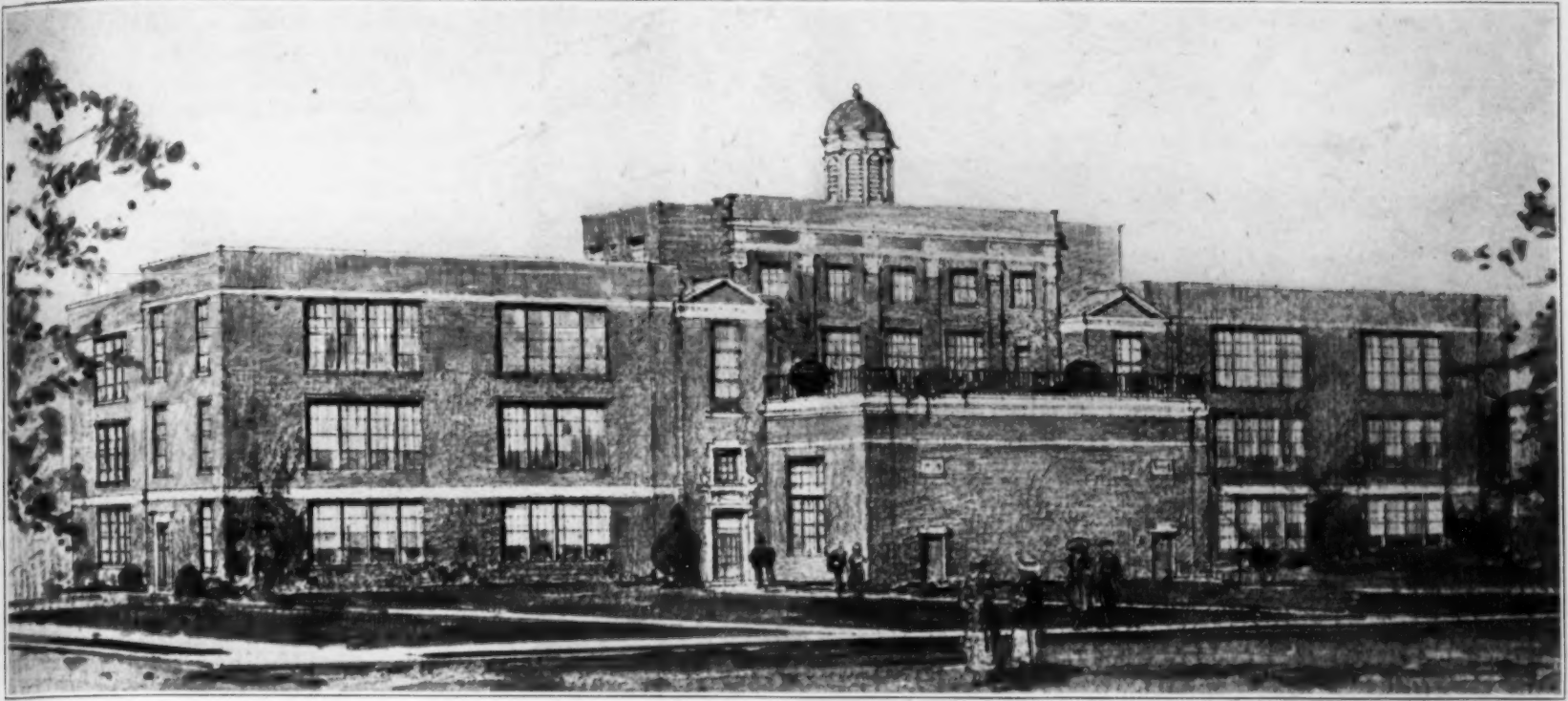
The class period as now planned will be 60 minutes in length. A teacher may divide this time as she sees fit, tho there will be no formal division into study and recitation periods. The purpose of each class period is to teach children how to prepare a lesson and the purpose of the school is to provide an ideal environment in which the pupils, with their necessary equipment at hand and with an instructor intelligently to direct their work, may be given every possible assistance.

Music will receive a larger place than it has hitherto been accorded. The music of the assembly period will be for the pleasure and joy that comes from singing. Special provision will be made for the musically inclined and the talented pupil.

Thirty minutes daily will be allowed for an assembly period. This time will afford opportunity for community singing, general student activities, lectures, concerts, and demonstrations. Much of the assembly work will be under the direction of the pupils themselves, who will thereby have an opportunity to develop responsibility in the organization of assembly programs. The assembly period will also afford the time for student club activities.

No pupil in the seventh grade will have more than three book subjects a day, and no pupil in the eighth or ninth grades will have more than four.

The school day for such a program as is contemplated will probably be six and one-half hours in length. Every pupil will be busy every one of the periods, three or four with academic subjects and the remainder of the day either in the laboratory, shop, studio, gymnasium, or commercial department. It is planned that each teacher shall have four classes a day with two free periods in which time she will be expected to correct all papers and make systematic preparation for the next day's work. When she leaves the building she will be through for the day.



ELEMENTARY SCHOOL NO. 9, BUFFALO, N. Y.
Key Design by the Associated Buffalo Architects.

Regular school activities such as debating, dramatization, glee club, orchestra, etc., will be amplified to the fullest possible extent, but all of these activities will be in connection with the regular daily work, not in addition or in interruption thereof.

With the foregoing purposes, plans and ideals in mind, teachers in Buffalo during the past year and a half have been preparing themselves for the opening of the new schools. More than one thousand teachers of the Buffalo schools have been enrolled in various extension courses, university courses and summer school courses. The opportunity for this professional preparation has been furnished by the city without charge to the teacher.

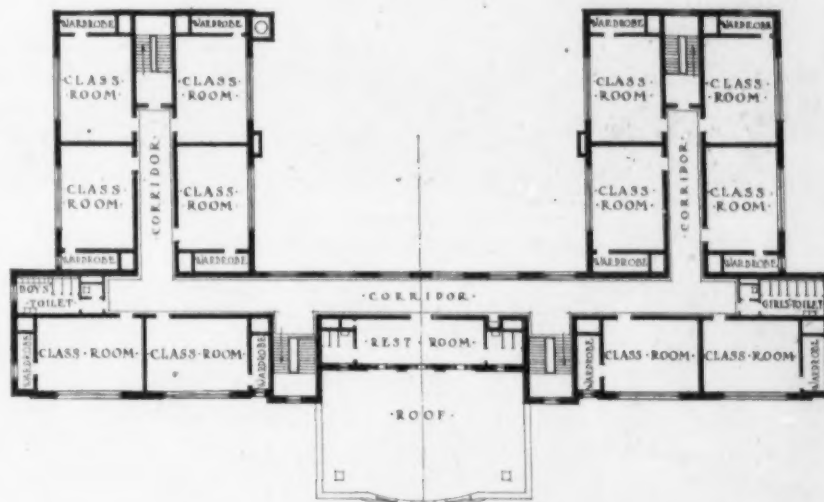
In addition to the specialized courses in special subjects, the following lecturers have been brought to Buffalo:

From Columbia University — Professors George D. Strayer, David H. Snedden, Bonser, Monroe, Biglow, Kilpatrick, Thorndike, Upton, Pattie Hill, Briggs, Bagley, Baker, McMurtry, Lida Lee Tall, Bambrill, MacFarlane and Engelhardt.

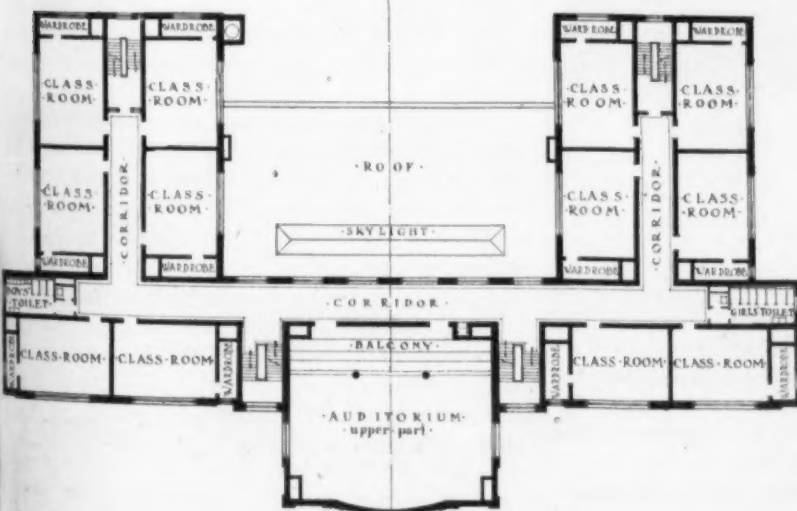
President J. C. Brown, State Normal School, St. Cloud, Minn.

Dr. Frank M. Leavitt, assistant superintendent of schools, Pittsburgh, Pa.

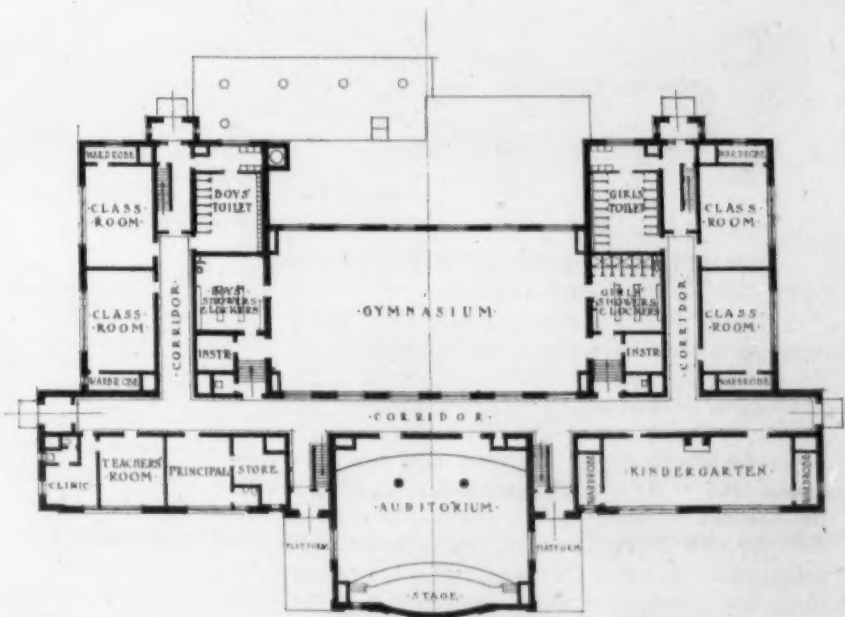
Miss Emma M. Bolenius, author of many books on the teaching of English.



SECOND FLOOR PLAN.

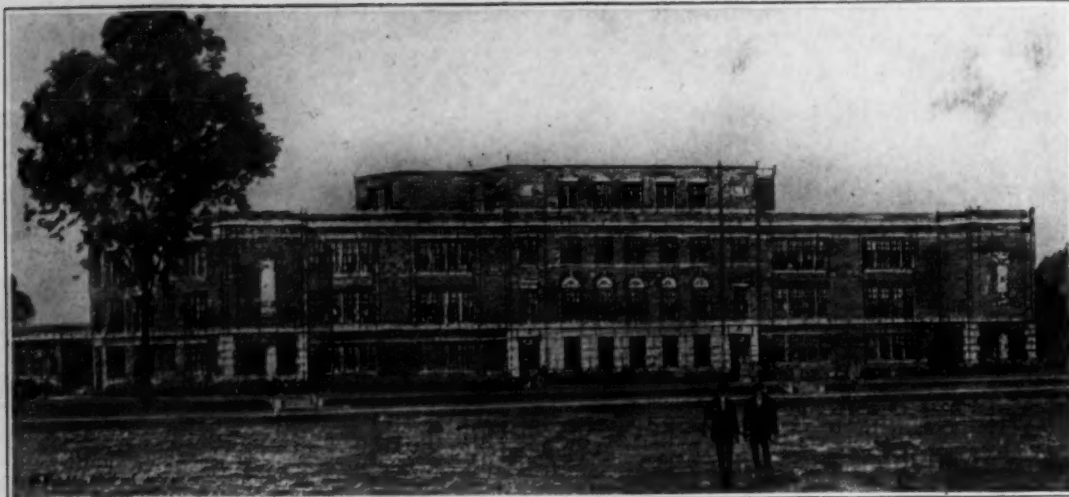


FIRST FLOOR PLAN

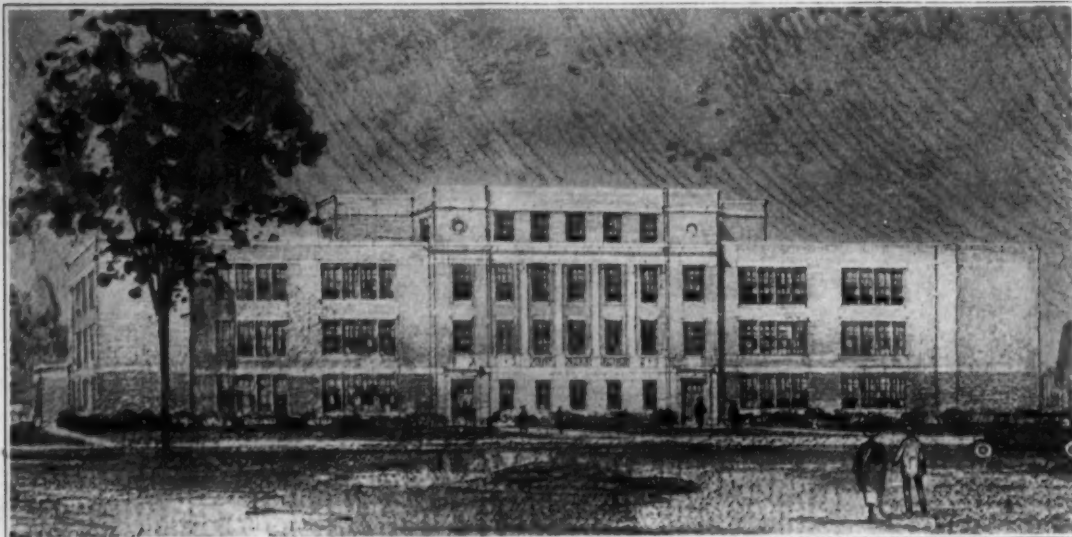


GROUND FLOOR PLAN.

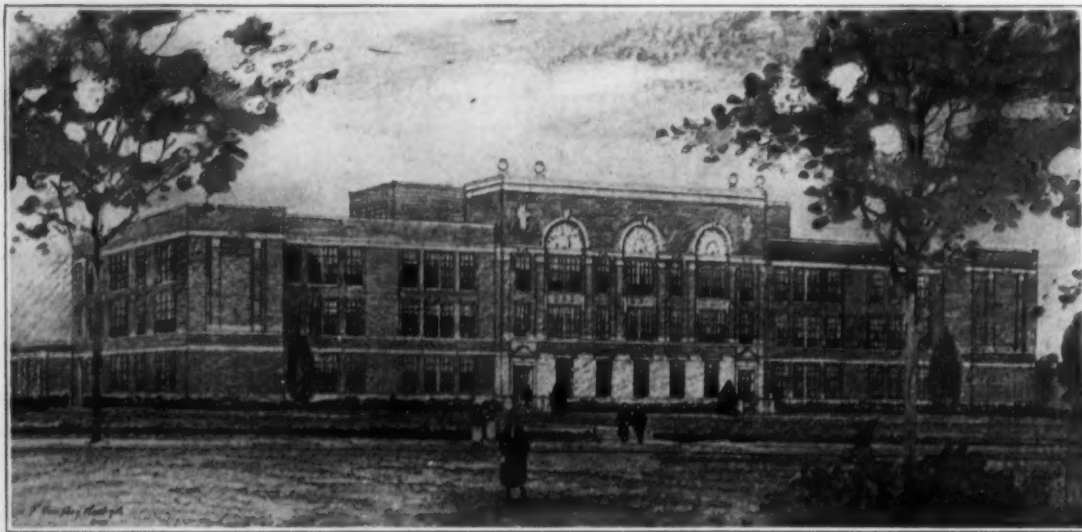
PLANS OF TYPICAL ELEMENTARY SCHOOL BUILDING.
Associated Buffalo Architects, William B. Ittner, Consulting Architect.



INTERMEDIATE SCHOOL NO. 12.
Designed by Martin C. Miller, Architect.



INTERMEDIATE SCHOOL NO. 9.
Designed by Wood & Bradney, Architects.



INTERMEDIATE SCHOOL NO. 11.
Designed by George Cary, Architect.

BEAUTIFYING RURAL SCHOOLS.

Elizabeth L. Cowan.

Did you ever see a rural school that had a winding and attractive path that led to its door? If you have it is well, for it is rare. Usually there is no semblance of a walk, but should there be one, it is the stiff, straight, concrete one that is suited to the artificiality of city life. In connection with the campaign that the state department of education expects to put on this fall for the improvement of rural schools, it might not be amiss to focus some attention upon the exterior of these schools as well as upon their lengths of term and their curricula. Every teacher who is now drawing a salary in a rural school has unlimited opportunity to leave a memorial to her name, in tangible form,

and at the same time to do great community service, by setting an example for all householders in the district.

A new schoolhouse fairly shouts its newness from the landscape, and for some strange reason even the old ones are ugly and unadapted to their surroundings, even after years of service. It is possible to make the school grounds the most attractive place in the neighborhood—and all of this without money cost. To be sure it will require some planning and forethought, perhaps even a little physical work, but the most of it will serve as a means of nature study, agriculture and landscape gardening for the girls and boys. They will be tremendously interested in making contributions of plants from their

own gardens and in doing the actual work of planting and pruning.

Attention to Yard.

First, there should be some attention given to the yard; it might need some grading or smoothing off, and the soil may need enriching along scientific lines. This soil analysis would serve as an excellent lesson. Then, a plan for planting should be made that would take into consideration the trees and background. The playground might be kept to the side or back, concentrating the beauty in one part of the grounds if that is necessary. This planting plan should be made on paper exactly as a landscape gardener would do, so that the various groupings of plants can be considered from the standpoint of color combinations, and shades of foliage. A succession of bloom can be developed, and in the country where the school term is short (all too short), a study of the early blooming plants should be made. There can be hardy borders with some flower beds of daffodils and tulips, with crocus for the very early spring, and if someone near will offer to care for them there can be a bed of annuals, late blooming ones, like zinnias, cosmos, marigolds, and periwinkles that bloom until frost. "The woods are full" of beautiful vines and shrubbery that can make the school yard a bower of beauty and an education as well.

A few native pines or cedars give a deeper note of color that is pleasing as well as shelter for many native birds thru the winter. The dogwood, so lovely in the spring, is quite as beautiful in its fall foliage; likewise the redbud, sassafras and sumac, with the native ninebark, can not be surpassed.

For vines nothing can be more beautiful than bittersweet and wild grape, and all of these can serve as a background and natural habitat for wild flowers that can be brought from the woods.

Money for Shrubbbery.

If the school patrons become interested (and it would indeed be a dead community if they did not) a little money spent for other shrubbery adds a different note of beauty. There is forsythia, with its bright yellow blossoms in the very early spring. Weigela, and spira with their wealth of pink and white bloom, and Rosa Rogosa, the single Japanese roses that have such rich, dark green foliage, and such beautiful rose apples that make the bushes a joy all thru the year.

Of course there should be numerous bird houses and shelves and feeding boards placed so the children can easily watch them, and a bird bath, too. Who can say that the boy or girl who takes only a listless interest in the grammar or spelling lesson may not here develop a love for nature and for science that may make him one of the great physicians of the years to come?

The plan should include a winding path of gravel or cinders, or better, of flat stepping stones, from the door to the road, and let there be some well built steps and perhaps a swinging sign giving the name of the school. It may be known on the records as No. 10, but locally it should and could have an individual name, and let this entrance be lighted by a modern electric or acetylene lamp in a quaint lantern. When this is done children will look forward eagerly to the days of their exploration into the charming and unknown land of education.

A state official in Massachusetts got himself in bad by publicly saying: "Why a schoolmaster could not even run a peanut stand successfully." This would suggest one effective way of squelching that mouthy state official: Prove the contrary.

THE SELECTION OF A CITY SUPERINTENDENT OF SCHOOLS

To select a competent superintendent of schools for a city is an important but difficult function of a school board. Neither the present salary of the person considered, nor the size of the city which he now serves, is an infallible index of ability. However, an adequate salary usually persuades men to become available, especially if their availability is protected from publicity.

Certainty of a wise choice is possible with the evaluations of five counts of qualifications. These points are: (1) Personality and ideals of candidate; (2) Moral character; (3) Academic and professional training; (4) Achievements in terms of service; (5) The applicant in his present position.

The first of these counts can easily be satisfied by a personal interview. The personality will soon be apparent. The reaction of the applicant to pointed inquiries will be indicative of his educational ideas. His contributions to the educational press will define his grasp and vision of the problems of education. Enconiums from influential friends are of doubtful value. Governors, mayors, senators, and state commissioners of education are responsive to the solicitations of applicants and their friends but seldom speak from personal inspection and adequate professional observation.

Count two, moral character, may be evaluated by inquiry of men of public trust of his city; of the president judge of the city court, the president of the bank where the applicant does business, or the president of the school board by permission of the applicant. His tenure of office in his present position and his family life, should also be taken into consideration.

The academic preparation will be indicated by the college or university which granted him his

bachelor's degree. Honorary degrees are not an index of scholarship. Graduate courses in education indicate a mental attitude favorable to educational progress. The absence of such courses indicates a static professional attitude.

The chronology of service at once furnishes his educational progress, especially if he advanced from important to more responsible positions. It shows the extent and largeness of his practical experience. This experience is the chief resource to weigh new projects and theories. Practical contact with elementary schools as a teacher, principal and supervisor is an essential qualification of a superintendent. The most important problem for a superintendent is the elementary school. It comprises by far the largest group and rises in importance accordingly.

The superintendent in his field of service may point to concrete examples of the essential control of methods and administration. The committee will at first-hand know the atmosphere which he in a large measure controls. His system of records, his standards, and the results may be inspected first-hand.

The question of confining the selection to a resident applicant always presents itself. A strong man ought not be handicapped by his residence. However, merit never elects a man because of his residence. Distance may lend enchantment. It should not count for qualification. A strong man who is acquainted with a system but not involved with the factions of the system has the advantage over a strong man ignorant of the conditions of the system—for guess or chance in supervision is criminal—and who must spend months and possibly years to analyze conditions and with the incident delay lose the support of the public and the confidence of the teaching group.

brightness on working surfaces is as ruinous to the eyes as insufficient brightness. Excessive light produces glare. Given a classroom with lighting of the proper intensity, it becomes necessary to guard against glare which might be caused by polished surfaces. Desk tops, glossy blackboards, pictures, particularly those framed under glass, charts and maps hung about the classroom, all are glare-producing surfaces and require proper adjustment and utilization with reference to the sources of light.

Interior Colors and Window Shades.

"The colors of classroom walls, ceilings, woodwork and wood trimmings, and furniture play an important part in the lighting problem. Dark tints absorb light and glossy surfaces, such as are produced by ordinary oil paints on walls and varnishes on woodwork, produce glare, and have an injurious effect. Classrooms with an unusually good exposure and very bright light should be finished with slightly darker tints than classrooms having ordinarily good light. On the other hand, classrooms located on inside parts of the building and not too well supplied with light should be finished in the lightest possible tints obtainable without resulting in glare. Combinations of tan, green, and gray are now generally favored. Various tones of these colors may be used and nonlight-absorbing tint obtained. Whichever color is used, the best practice is to employ two or three tones, e. g., lower part of walls to height of 3 or 4 feet, in a dark tan; the upper part of the wall to within 2 or 3 feet of the ceiling, light tan; the rest of the wall, together with the ceiling, in a faint shade of cream color. A similar graduation of tints may be worked out with green, except as regards the ceiling, which should, under all conditions, be very pale cream, and only in rooms where the lighting is not quite adequate ought it to be in white. A combination of dull green and a pale mixture of green and gray may also be used satisfactorily, with the lighter shade, of course, on the upper portion of the walls.

"Woodwork and furniture having glossy surfaces, produced generally by being varnished, are a distracting element. Such surfaces cause reflections and will minimize the value of the best lighting system. All woodwork should, therefore, be finished to a dull surface regardless of the color.

"Window shades play a highly important part in the adjustment of light in classrooms. The primary function of a window shade when drawn is to exclude excessive light and glare. The utmost care, selection of color, and judicious use of window shades is necessary. Torn or cracked shades are a menace in that when pulled down sharp rays of light penetrate into the room with much more intensity than when diffused thru the unobstructed window. To be of the fullest service, it is necessary for a window shade to comply with these two major requirements:

"(1) The color should be of a light buff tint or even white (depending on orientation of windows on which they are hung), so that they will permit sufficient light to penetrate into the room on a bright day without admitting glare.

"(2) The shade should be so adjusted and fitted to the window as to permit its being drawn either up or down to such a position as to cover no more of the window area than is necessary for shutting out excessive light. The only entirely satisfactory device is the adjustable fixture whereby any desired part of the window can be covered.

Blackboards a Factor.

"Blackboards, good or poor, if badly placed, are potent factors in the production of eyestrain. Blackboards of the most approved type,

(Concluded on Page 118)

THE EYESIGHT OF SCHOOL CHILDREN

Schoolroom lighting has an important bearing on the eyesight of children. This fact is definitely established. Defective lighting has had much to do in causing defective eyesight, and school boards here bear a responsibility which is not appreciated to its fullest extent. The Bureau of Education at Washington has just brought out a comprehensive study of the subject, made by J. H. Berkowitz, which embodies the more recent information gathered and deals with the corrective measures that must be employed.

Mr. Berkowitz shows that the larger cities have done much to reduce the number of those afflicted with defective vision. Architecture has come to the rescue, and medical inspection followed by the services of the oculist have met with surprising results. But, the records as a whole demonstrate that much more needs to be done. The number of pupils who are afflicted with poor eyesight and at the same time subjected to insufficient schoolroom lighting is very large.

Essentials of Classroom Lighting.

The author holds that the principal elements to be considered are: "(a) Natural light, dimensions of classroom, orientation of windows, proportion of window area to floor area of classroom, proportion of height of windows from floor to width of classroom, window shades, proximity of windows to walls of adjoining buildings. (b) Artificial lighting, whether by means of gas or electricity, while heretofore provided mainly to meet the emergency of cloudy days, is now much more needed because of the wider

use made of the schools at night. Of the three systems of artificial lighting now generally employed, direct, semi-direct and indirect, the semi-direct is considered the most satisfactory for schoolroom lighting. By this system the source of light is diffused thru an opaque glass bowl to the working plane and some of it is reflected either by a reflector or by the ceiling."

In discussing the four cardinal requirements he says: "(1) The ratio of glass area to floor area depends somewhat upon climatic condition. In northern zones, where there is a good deal of cloudy weather, the glass area should be not less than one-fourth of the floor area. In southern zones, especially in the southwest of the United States, the ratio may be reduced to one-fifth and in some cases even to one-sixth. However, it is much easier to exclude excessive light than it is to increase a deficiency of light.

"(2) Windows should be placed on one side of the classroom so that the light will fall upon the writing surface of the desk from the left side of the pupil. There are probably some conditions under which overhead lighting and bilateral lighting are both practicable and preferable, but this method of unilateral lighting is generally accepted as the best practical solution of this problem.

"(3) There should be uniform light distribution, both natural and artificial; that is to say, all parts of the classroom should be equally well lighted so that desks farthest away from the windows should receive adequate light.

"(4) Glare from any source or cause must be avoided. It is well established that too great a



THE AMERICAN School Board Journal

WM. GEO. BRUCE { Editors
WM. C. BRUCE

EDITORIAL

SCHOOL LEGISLATION PROGRAMS.

Legislative programs, dealing with school law making, are the order of the day. There is scarcely a state in the Union that is not at this time confronted with a series of amendments to present school laws and with numerous measures dealing with various phases of the school situation.

In the main the proposed law making concerns itself with the subject of taxation. The changed economic conditions which have presented themselves during the past few years demand more liberal appropriations for school purpose. Education, like everything else, costs more money than it did a few years ago. Many school districts have gone the limit in taxing themselves for school purposes. Some have even violated the existing laws governing taxation in order to keep the schools going.

Teachers' organizations in many states have prepared numerous recommendations dealing with minimum salaries, tenure of office, pensions and the like. State educational departments not only urge better local and state support for the schools but nearly all insist upon a strengthening of the present school attendance laws.

There is a widespread tendency at this time to secure a maximum service out of the school plant. The authorities have begun to measure the returns with the investment and have found some woeful inconsistencies and deficiencies. Here actual attendance notes the measure of service which the plant renders. While the quality of the product is an important consideration, the quantity factor shows up more glaringly in a statistical analysis. The average attendance and the number of graduates in the light of investment and maintenance cost, speak louder than pupil standards and quality production. Thus, legislators will not only be called upon to ease the limitations fixed during a pre-war period but also to exact a better use of the present school plant. This implies a lengthening of the school term in the rural districts, an extension of the school age, and a general rounding up of the school truant both in city and country.

The question of better salaries will be urged in many states. While the justice of these demands cannot at the present time be questioned, it also follows that the conservative legislators will be likely to base their action upon the probable economic conditions of the future. If the cost of living declines in any material degree, all compensation will be affected and the teachers' salary problem may, in a measure, thus adjust itself.

Here we must repeat what we have frequently uttered before, that the compensation of teachers should be fixed more nearly in keeping with the value of the services they render to the nation and the standards of living that should go with an honorable professional career. The law of supply and demand has had the tendency to place the teacher upon the auction

block only to be sold to the lowest bidder. The thoughtful lawmaker should bear in mind that he must stand between a type of the shrewd bargaining school official and the underbidding teacher-applicant. A living wage, and one that will permit the accumulation of an old age competency, must be provided.

It is needless to say that many of the legislative programs offered this year contain projects and innovations that are impracticable and visionary. These require no discussion here. They will fall of their own weight. The progressive legislator will center his thought and effort upon the vital problems and, in every instance, seek a solution that will strengthen the efficiency of the school plant and at the same time secure a better output both in quality and quantity.

THE BUFFALO SCHOOL WAR.

The unrest which has beset an entire world growing out of disturbed economic and social conditions everywhere was certain to manifest itself in the field of school administration in the United States. We have witnessed during the past year alarming situations in various sections of the country designed to undermine the discipline and service of the schools.

The disturbances took various forms in the several localities, but they all grew out of the differences arising between the schoolroom workers and those in administrative charge. It was not a conflict of authority so much as it was an opposition to constituted authority. Discipline had become irksome. The soviet spirit had entered.

In Buffalo the conflict took dramatic form. The political factors appeared upon the scene. Six teachers had issued a seditious pamphlet. The school authorities were charged with incompetency and extravagance. Publicity became a weapon and public opinion the ultimate decisive factor.

The school board and the superintendent fearlessly performed their duty. They fired the disturbers. They courted investigation and remained calm in the midst of the storm that waged relentlessly and viciously. An impartial investigation and complete exoneration followed. The disciplinary acts of the school board were supported, the public was satisfied and the press voiced its applause.

The central figure, Superintendent Hartwell, remained true to the high trust placed in his hands. In a fracas of this kind much depends upon the character of the superintendent. He must hold firmly to educational practice and procedure, face unwarranted persecution with dignity and patience, and remain confident that time and tolerance will right all wrongs.

Wherever school boards, in dealing with the turmoils that have arisen, have firmly upheld their authority and exerted the disciplinary powers which the law has vested in them, the disturbers have been squelched and peace has been restored. In every instance, too, the public has sustained the school authorities that have stood unflinchingly for order, discipline and service.

EXPEDITION IN SCHOOL ADMINISTRATION.

It is safe to hold that the average board of education in this country deliberates with proper circumspection and decides with reasonable expedition. The slam bang is exceptional. The tendency to look before leaping is quite general with the result that on the whole sound administrative policies are adhered to.

If there is any difference between the various sections of the country it is found in the fact that the West is characterized by more ready action than the East. Or, to state this in an-

other way, the eastern take more time for deliberation and debate than do the western school administrative bodies.

Thus, it follows that hasty and unwise school board action is more likely to be found in the West and Middle-West than in the East. On the other hand the ultra-conservative is found in the East. The latter, in spots at least, clings with greater tenacity to tradition and form while the western school body is more ready to accept the new and experimental.

The one is inclined to the thought that "what was good enough for our forefathers is good enough for our children" while the other readily holds that "nothing is too good for our children. Let's have the best."

While these expressions note the two extremes they at least note an inherent tendency as well. Both embody elements of danger. The slumbers of the one are as bad as the hasty action of the other. There are instances on record where school boards in the West changed superintendents during an hour's confab, and without previous warning, while school boards in the East have fussed for months over a vacancy.

A conspicuous example is afforded by the city of Philadelphia. The superintendency there has been vacant for eight months. The school board scoured the country for a great educator to fill the place. It found several good men and then could not decide which was the most acceptable.

The Philadelphia Ledger, in commenting on what it calls a "Public School Crisis," says: "The whole trouble has been that the board has been more solicitous of its own precedence and power than in promoting the welfare of the schools, and has displayed extreme care not to select the strongest and best man available to the superintendency."

The editor continues as follows: "It is sufficiently humiliating that after seven months of presumably conscientious search and after making the salary of the office more nearly commensurate with its importance, the only result is that several of the best men of the country who have been approached refuse to come to Philadelphia. No wonder the teachers of our schools, who are wholly dependent for their tenure, promotion and opportunities for service upon the superintendency under the existing rules, are alarmed and anxious as to the outcome! They have the right to look to the board for the election of a head to the school system who has a clean record as a just and sympathetic administrator and who is a firm and uncompromising believer in and supporter of the fundamental principle of equality—equality of salaries, opportunity, advancement, certification and, in fact, everything for which the word stands."

This brings to the fore the confusion that may arise and the injury that may be done thru unwarranted delay that springs either out of an ultra-conservatism or a selfish attitude on the division of authority between superintendent and school board. The Philadelphia deadlock is in violation of that administrative direction and expedition so essential to efficient school government.

THE PRESIDENT AND THE SUPERINTENDENT.

The two most dominant figures in the field of school administration are the president of the board of education and the superintendent of schools. Each clothed with executive and judicial powers, the relation which they bear to the system of popular education, as exemplified in this country, is at once vital and decisive. As leaders, one representing a taxpaying public and the other a teaching constituency, they exert a decisive influence in directing the affairs of the school system under their charge.

If the relation they bear, each in his own capacity, to the school system as a whole is vital, it also follows that, as coordinate officers, they bear an important relation to each other. In the light of the interest which they jointly subserve these relations become a factor that deserves consideration.

Beyond a high degree of personal courtesy and tact which should obtain in the daily contact between men the president must primarily have an adequate appreciation of the function of the superintendent. He must recognize in him the professional expert and the leader of the educational forces. If local industrial, commercial and civic conditions, coupled with the financial ability of the community, enable the president and the school board to suggest what shall be taught in addition to the usual cultural studies, it must be left to the superintendent and his forces to determine how the several studies shall be taught.

On the other hand the superintendent must recognize in the president not only the presiding officer of the legislative body, namely the school board, but also the representative of the public and as the highest executive of the school system. It must become apparent to him that the president is concerned in a co-ordination of all the forces implied in the efficient administration of the school system as a whole.

The concern of the one is financial, the other educational. The president deals with the investment and the current cost of maintenance of the school plant, and must keep his eye on its operations and its production service. The superintendent is the directive head who must be given authority in the selection of his forces and the materials placed at his command, if he is to be held responsible for the quality of the output.

The superintendent must, however, in addition to the authority granted him, have the friendly cooperation of his president. All criticism must be constructive and helpful and without rancor.

They pull in the same harness and one cannot assume to become the driver of the other. Nor is the one boss and the other employee. Both are public servants who, each in his own capacity, have in charge a great public trust. There must be mutual respect, mutual courtesy and mutual cooperation if they are to render, severally and jointly, the best service that is in them.

A mutual recognition of the correct function of each and affable personal relations between them will do much to avoid friction and to strengthen the administrative labors of the system.

DROPPING OF INCOMPETENT TEACHERS.

The tenure of teachers has received much attention in recent years. The customary method of hiring teachers from year to year, thus enabling the dropping sans ceremonie those alleged to be incompetent, has given rise to dissatisfaction. Teachers generally have held that three years of satisfactory service should constitute a claim for permanent tenure and that removals thereafter should not be made until a fair hearing had been given and until teachers had been proven incompetent.

Those who oppose this method hold that under its operation it is almost impossible to remove an incompetent teacher. The claim is made that the teacher under fire will rally to her support taxpayers who are in nowise competent to judge her fitness for classroom service, and will urge the charge that "a cruel school board is persecuting a defenseless woman," with the result that public sympathy rather than public duty will win the day.

On the other hand it is held that where the teachers have been appointed for the period of

one year they may at the end of that period be quietly dropped from the list, if found incompetent, without the incurring of a "come back" in the nature of an embarrassing demonstration.

At Portland, Oregon, the question is now agitating the minds of both teachers and school board members. It seems that the power to remove teachers in that city was by law left to an outside body appointed by one of the local judges. No teacher was to be removed except on charges preferred and upon being adjudged incompetent after due trial of the case. The result was, it is claimed, that incompetent teachers have remained in the service. The school board now seeks an amendment to the law whereby the removal of teachers will once more come under the jurisdiction of that body.

It is unquestionably true that where a pension system is in effect greater consideration must be given to the tenure question. In no instance should a teacher be removed unless incompetency or immorality is unquestionably established, but where the teacher has been a contributor and supporter of a pension fund it is doubly important that no injustice be practiced.

At the present time it is safe to say that there is greater likelihood for the retention of the incompetent teacher than the removal of the competent. With the shortage in the teaching profession—shortage of the well trained—the poorly prepared have had more than an even chance. On the whole there is no need of apprehension on the part of those who can and do render efficient service.

A way must be found whereby the inefficient can be eliminated without inviting sensational hearings and unpleasant publicity. Again, the conscientious and successful teacher must not be exposed to the danger of dismissal. A reasonable security in tenure must be ensured. The right of the teacher must not be ignored. But, the rights of the pupil must not be forgotten.

EXPLOITING THE SCHOOL CHILDREN.

A school board in a mid-west city surprised the public and the press by refusing point blank to permit a collection to be taken in the schools for a most worthy charity cause. The board incidentally revived an old rule that no propaganda work of any kind, no matter how laudable, would hereafter be tolerated in the schools.

Rules of this character are not new. They have been in effect for many years and school boards generally have observed them with reasonable consistency. During the war, however, the school authorities were inclined to let down the bars. There were patriotic ideals to subserve, followed by charity movements in behalf of those who served the country. The distribution of literature, essay contests and collections followed in quick succession.

No doubt, all these efforts were proper during and immediately after the war. But, normal times are being restored and the schools must be held to their true function. They cannot serve as a clearing house for the various notions, ideas and movements undertaken by well meaning propagandists without interfering with the interests of the child.

In the regular course of school life the stimulation of patriotism is not overlooked. Charity, too, is encouraged by teachers and textbooks, thrift comes in for a fair share of attention. There are, of course, many more good things with which the child ought to be familiar, but he can only absorb so much in the course of his school days and no more. Some things must come to him later on.

After all, the schools must confine their efforts to the purposes for which the schools stand and to render the largest measure of service to the school child.

THE SCHOOL MARKET.

The school bond sales for December, consisting of 99 different issues from that many school districts in the United States, aggregated \$13,897,500. The issues ranged from \$10,000 to \$2,000,000, or an average of \$140,000 per issue. The interest rate ranges from four to six per cent, but those offering four per cent usually sold below par, while a number of those providing an interest rate of six per cent sold at a small premium. The average earning on the school bonds run along in figures of about five and a fraction per cent.

The tendency has been for a better market in the eastern and north central sections. In the western and southern sections, a higher interest rate has been exacted. In part, the variations have been due to the ability of local bankers to purchase and market the bonds.

The year 1921 opens with some larger offerings. The city of Cleveland is advertising school bonds to the amount of \$5,000,000 and the state of Georgia \$3,500,000. Various school districts are placing bonds on the market or preparing to do so. An authority on the subject says: "The municipal bond market is commencing the new year in a manner which encourages the belief that we will see higher prices and a generous volume of business for some months to come."

The conclusion to be drawn is that the school authorities are yielding to the pressure for more schoolroom accommodations. The reduction in the cost of material and labor has given some encouragement. On the whole, the prospects are favorable to an active year in schoolhouse planning and construction.

CHATS DURING RECESS.

Compulsory schools for wives to equip them for the responsibilities of matrimony is urged by Arthur F. Lederle of the Detroit public schools. How about husbands, Arthur? Are you going to let them go scot free?

At Pottsville, Pa., a mother of ten children was defeated in her candidacy for the school board. Perhaps the voters thought that her services were needed at home.

From Everett, Wash., comes the news that Mrs. Elsie Mathewson was elected to the school board of that city without the aid of "clique, club or clergy." The hand-picked candidate never was a real representative of the people. Come in, Mrs. Mathewson, and take a front seat!

"Some people who kicked the Bible out of the schools want to kick dances in," said the sheriff to the school board at Spokane, Wash., in arguing that school dances were bad. Since things are done by kicks why not simply reverse the kicks? That's what the sheriff is kicking for.

The New York City Board of Education needs \$82,026,000 for the schools in 1921. The board of estimates has responded with \$50,720,880, leaving a deficit of more than \$27,000,000. And now the New York editors advance the slogan "raise the money or raze the schools."

The boy students of Waukegan, Ill., wanted to run the high school lunch room according to their own notions. The school board insisted upon certain rules. Then the boys went on a "hunger strike," by striking for the nearest restaurant where they could get meals at higher prices and smoke their cigarettes in peace.

Boston has settled another school question. The complaint was made that a boy had worn out three pair of pants in three months because the bench was rough. The decision is that the boy, not the bench, is to blame. He supplies the friction. The final solution is now up to the modern pants maker.

A Practical and Uniform System of Marking the School Work of Pupils

Supt. Chas. W. Kline, Waterloo, Iowa

It may be superfluous to mention this subject again, but the fact remains that the question of how to estimate and mark the school work of the individual child is still a serious problem with many teachers. A little investigation will show that in any system of schools of a dozen or more teachers there is a great variation in the marks of the several teachers. The larger the system the more diverse will be the marking and the wider will be the variation.

In the schools of East Waterloo a certain type of grade card had been used for several years. One of the principal objections to its continued use was the entire lack of uniformity in grading the pupils' work. A child would get excellent marks under one teacher and under the next one would get much lower marks. Apparently the child was just as diligent in his work and put forth just as great effort as in the preceding grade, but different teachers had different ideas as to how work of a certain character should be marked on the pupil's card.

The card used for all these years was marked in letters, but on the back of it these letters were interpreted in figures. F denoted failure, or below 70; V. P. very poor, or between 70 and 74; P denoted poor, or between 75 and 79; M denoted medium, or between 80 and 84; G denoted good, or between 85 and 89; H denoted high, or grades between 90 and 94; and E denoted excellent, or grades between 95 and 100.

Even with the use of these letters teachers quite often resorted to the use of plus and minus signs to indicate that the work of a pupil was above or below the actual mark indicated by the letter. It is difficult for some teachers to get away from estimating the work of pupils in actual figures. Some even go so far as to use fractions when placing the grade on the grade sheet or card.

In the fall of 1919 at a conference of principals it was decided to try to revise the system of marking. Every phase of the question was discussed by the principals themselves and was then referred to the teachers for discussion and suggestions before any final action was taken.

The first question to receive consideration was the number of divisions there should be in a scale of marking. There are some teachers who feel that a scale with seven divisions is the most satisfactory. There are many, however, who feel that a five division scale is the best to use since it is more simple and can be made to follow quite closely a normal curve of distribution. There is also some argument for a scale divided into three parts; it is even more simple than one with five.

A Five Point Scale.

In many schools, too, there are only two kinds of marks used, one to signify that the pupil has done satisfactory work and has made a passing grade, and the other that the pupil did not make a passing grade. This system is of course very easy to administer and the teacher has little difficulty in determining the class into which each pupil should be placed.

It is a well known fact, however, that in any normal group of children there are quite marked variations in ability and achievement. In view of this fact, if possible, teachers should endeavor to indicate on the grade card the character of work done by the pupil in comparison with other members of the class. It was finally decided that a five point scale would be the most satisfactory for our use.

It was the almost unanimous opinion of both teachers and principals that letters should be used instead of figures. Since letters were to be used, the next question that arose was what letters should be selected for this purpose. Here again it was decided that letters signifying quality of work should be avoided as far as possible. For example, G seems to carry with it the ideas of "good," whether it be good behavior or good work in some school subject.

The same objection may be raised and was raised to E. Usually we think of E as indicating excellent in something. So it was decided in so far as possible to use letters that would not suggest any quality of school work, or conduct. The letters finally agreed upon were F, denoting failure; D, below average; C, average; B, above average; and A, superior work. The idea in the choice and use of these letters is that pupils should be marked in comparison with other members of the class and not on an abstract basis of percentage.

When it comes to the actual test of putting down in letters or figures the value of a pupil's work in class, teachers differ greatly on the items that should be considered in making up that grade. Should quality of work alone be considered, or should effort also be considered? Should the very diligent and earnest student be rewarded for his sincerity of effort? On the other hand, should conduct be considered when making up the grade of the pupil in his class work? It is a well known fact that many teachers do give considerable weight to both of these points—effort and conduct, or behavior.

After a very careful consideration of both of these questions it was decided that neither one should enter directly into the consideration of the mark to be given. The mark on the report card is intended to indicate the quality or efficiency of the work done by the pupil and it is very difficult not to allow other considerations to influence that mark. The grade on the report card is supposed to be the best estimate the teacher is able to make of the ability and achievement of the pupil in that particular subject. He may have been able to do better work but if he did not, this mark should not indicate that he did.

Must Measure Work of Pupil.

On the other hand, the mark is not true if it does not measure what the pupil really did. How, then, may the parent or even the pupil know whether the mark indicates the best effort of the pupil? It was decided that when a teacher felt that the pupil could do better work than he really did, this grade should be placed in red ink.

It is surprising what a stimulus the mark in red ink really is. The use of this device during the past year has fully justified its adoption. If a teacher finds that a pupil is not working up to his limit she places the grade in red ink and the result usually is that it stimulates effort and application on the part of that pupil.

Conduct in school is rather difficult to mark. Perhaps a large majority of teachers feel that it is not possible or satisfactory to mark in on a percentage basis. It is not clear that the behavior of any child can be designated in any such way. It is also rather hard to select letters that will indicate just what the teacher may have in mind. After all, however, pupils fall largely into two groups, those who have a satisfactory attitude toward school and those who do not.

In view of this general fact it was decided to use only two terms, satisfactory and unsatisfactory—the teacher to place a check mark opposite the proper term. In this respect the results would seem to prove that these two words are entirely adequate to indicate the attitude or conduct of the pupil in school. If the pupil's attitude is checked as satisfactory both parent and pupil are satisfied. If it is checked unsatisfactory, both have an opportunity to find out where the fault lay.

Certainly both parent and pupil should find out wherein the conduct of the pupil is not satisfactory. It is a well known fact that quite often unsatisfactory attitude is accompanied by poor school work. In either case the parent should be concerned and confer with teacher and principal about the welfare of the child.

The back of the card here presented is intended to serve as an explanation to the parent of the various letters used:

TO THE PARENTS:

This report card is sent out at the close of each six weeks' period. You are asked to examine it carefully because it will show, as well as teachers are able to judge, the kind of work your child is doing in school and also his general attitude toward school.

The marks in the various subjects are intended to show the progress of the pupil in comparison with other members of the class.

The special subjects, Music, Drawing, Penmanship, Sewing, Manual Training and Rhetoricals are all grouped under the one heading. The pupil is expected to make an average grade in these subjects.

A denotes superior work.

B denotes above average work.

C denotes average work.

D denotes below average work.

F denotes failing work or below passing.

A grade in red ink indicates that the pupil is able to do better work.

Attitude toward school, or "conduct," is marked by a check opposite the word satisfactory or unsatisfactory. If attitude is checked as satisfactory and the pupil has no grade below C, and no grade in red ink, the pupil is doing as well as can be expected. If grades fall below C or are marked in red ink, or attitude is checked as unsatisfactory, the parent should confer with the principal and teacher about the school work of the child.

Absolute Rule Impracticable.

The next question to be decided was what percentage of grades should fall in each group or under each letter. A little investigation will prove that teachers who have not made a study of the question do not have much idea how grades should be distributed. Some teachers will place most of their grades above average, while others will place most of them below average.

Oftentimes the grades received by the pupils of a class will depend primarily upon the feelings of the teacher. Some teachers are naturally quite liberal in grading, while others mark quite closely. It must be remembered that no absolute rule can be established. From various tests and investigations, however, it seems to be fairly well established that any group of children will fall into rather well defined divisions. There seems to be a fairly uniform curve of distribution of talent and achievement.

On this basis it would be fair to assume that 4 per cent or 5 per cent of an average group of children would fail in their work and about the same percentage would do superior work. This rule seems to be pretty well established. It is at least a normal condition and one that any teacher might expect to find in almost any group of children. On the other hand, a large percentage of any group of children may be expected to do average work, which would entitle those to a grade of C. This group usually will be about 50 per cent or 60 per cent of the class or group.

(Continued on Page 117)



"America" with the Victrola, Teachers' College, Maryville, Missouri

The Victrola in the National Week of Song

February 20-26, 1921

A nation-wide movement setting apart one week of the
52 for especial attention to our patriotic and home songs

The following list of matchless Victor Records will provide many entire
programs for the observance of this week in school, church, club, or commu-
nity center:

America (17580)
America the Beautiful (18627)
Annie Laurie (18177)
Battle Cry of Freedom (17582)
Battle Hymn of the Republic (18145)
**Believe Me, If All Those Endearing
Young Charms** (18145)
By the Waters of Minnetonka (18431)
Carry Me Back to Old Virginny (74420)
**Come Where My Love Lies
Dreaming** (64423)
Darling Nelly Gray (18195)
Dixie (17583)
**Drink To Me Only With Thine
Eyes** (18177)
Flow Gently Sweet Afton (18177)
**From the Land of the Sky Blue
Water** (64516) (64190)
Hail Columbia (17581)
Home, Sweet Home (18145)

Juanita (18519)
Love's Old Sweet Song (18177)
Massa's in de Cold, Cold Ground (18519)
My Old Kentucky Home (18145)
Nancy Lee (64613)
Old Black Joe (18519)
Onward Christian Soldiers (18627)
Red, White and Blue, The (17580)
Song of a Thousand Years (17582)
Star-Spangled Banner (17581)
Stars of the Summer Night (18627)
Steal Away (17890)
Sweet and Low (18417)
Swing Low, Sweet Chariot (17890)
There's a Long, Long Trail (64694)
**Tramp, Tramp, Tramp, the Boys are
Marching** (64608)
**When Jonny Comes Marching
Home** (16984)
**When You and I Were Young,
Maggie** (64913)
Yankee Doodle (17583)



"HIS MASTER'S VOICE"
REG. U. S. PAT. OFF.

This trademark and the trademarked
word "Victrola" identify all our products.
Look under the lid! Look on the label!
VICTOR TALKING MACHINE CO.
Camden, N. J.

For further information consult
any Victor dealer or write direct to
the

Educational Department
Victor Talking Machine Co.
Camden, N. J.



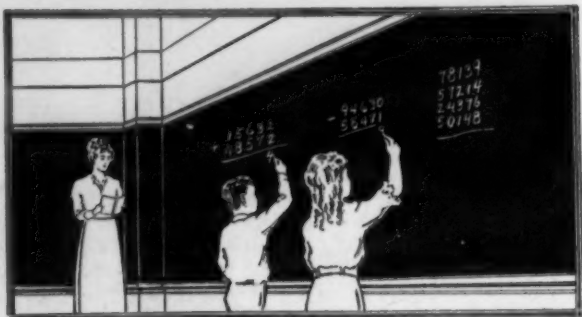
Victrola XXV
especially manufactured
for School use

This is the instrument that is used
in thousands of schools. Many
years' experience has proved it is
the instrument best adapted to all-
round school use.
When the Victrola is not in use,
the horn can be placed under the
instrument safe and secure from
danger, and the cabinet can be
locked to protect it from dust and
promiscuous use by irresponsible
people.

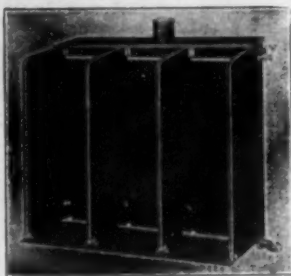
ALBION QUARRY NATURAL SLATE BLACKBOARDS

Are Black and stay Black. The only PERFECT writing surface.

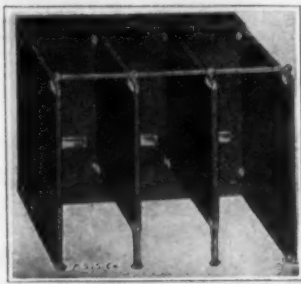
Sample and Booklet sent on request



The "KEENAN KIND" Sanitary Slate Fixtures provide perfect Sanitation and Ventilation.



B-11 1/2 S—Urinal



B-26—Closet

Large Illustrated Catalog for the asking

KEENAN STRUCTURAL SLATE COMPANY, Inc.

First National Bank Bldg.,

BANGOR, PA.

BUYING WITHOUT REGRETS

The "law of compensation" is relentless.

"Nothing for Nothing" applies in every realm of effort. But the man who makes an unwise purchase buys something that—like a deficit, is less than nothing; for it requires additional outlay in later years.

NATURAL SLATE BLACKBOARDS

from our quarries represent the acme of economy and educational efficiency. They require no upkeep, while artificial boards must be resurfaced, repaired and replaced regularly. In comparison, the word "economy" is defined in its truest sense. Slate being non-porous does not absorb anything, so cannot disintegrate. It is finished with a beautiful, velvet smooth surface that does not become gray with age or use; that makes writing a pleasure and reading a relief to the eyes of the students and teachers. That is why our Natural Slate Blackboards combine the utmost efficiency with the utmost of economy.

These are but a few of the advantages. Before you spend a dollar for Blackboards, you should read our book "How to Judge, Specify and Install Blackboards." Send for it today.

Penna. Structural Slate Co.

Worth Building

Easton, Penna.

The School Board's Side of the Contract

A Superintendent's Wife

One day during the past summer I sat in the office of a friend of mine, Miss Southey, whose time is spent training and developing young teachers. A schoolman, Mr. Brant, came in and asked in a brusque way:

"Have you a first-class teacher? I want one for our Mountain school."

"Yes," said Miss Southey. "I've got a first class teacher; a pretty girl, in good health, well trained, tactful, and a worker. I have a first class teacher for your school; have you a first class school for my teacher?"

Mr. Brant was taken aback. He began hedging and explaining. But Miss Southey followed up her words with some more. Her answer to his surprised objections and criticisms amounted to about this:

"Yes, I get the highest-grade girl that I can; then I give her the best training that I can. My whole thought is given to producing a superior teacher, which means, among many other things, a refined and sensitive girl. Then some of you schoolmen come here and expect me to give her to you for any kind of a place. If I can possibly prevent it I don't give one of my girls to a place where the school building is unsanitary or uncared for, where the superintendent is an unreasonable driver, where the community is uninterested in the schools, or where she cannot find a comfortable home within her means. These are some of the reasons why certain schools can't get good teachers. You wouldn't treat a horse the way you expect me to treat my girls. You wouldn't take a

high-bred horse and train him for the carriage or the saddle, and then hire him for work on a log team, no matter what price you were offered. When you want to do really rough auto-mobiling you use a Ford. I have no 'Fords' among my teachers."

Mr. Brant listened to all this with wide-open eyes. So did I. He had never before looked at it from quite that angle. Neither had I. I had always felt keenly the girl's responsibility to the school and community, but provided she had a livable boarding place, I felt it was her duty to stand by her job, and make the best of conditions as she found them. In fact I wrote several articles for school journals, in which I told her so.

As a result of my hour with Miss Southey I have modified my ideas. It is quite in the nature of things that the good teachers should go to the good schools. A good school, from the teacher's standpoint, does not necessarily mean the highest-salaried school. Last year I heard a bright young teacher decline a position in a rich community. She said: "There is not enough money in that whole town to buy me. They are too unkind and inconsiderate, from the superintendent down."

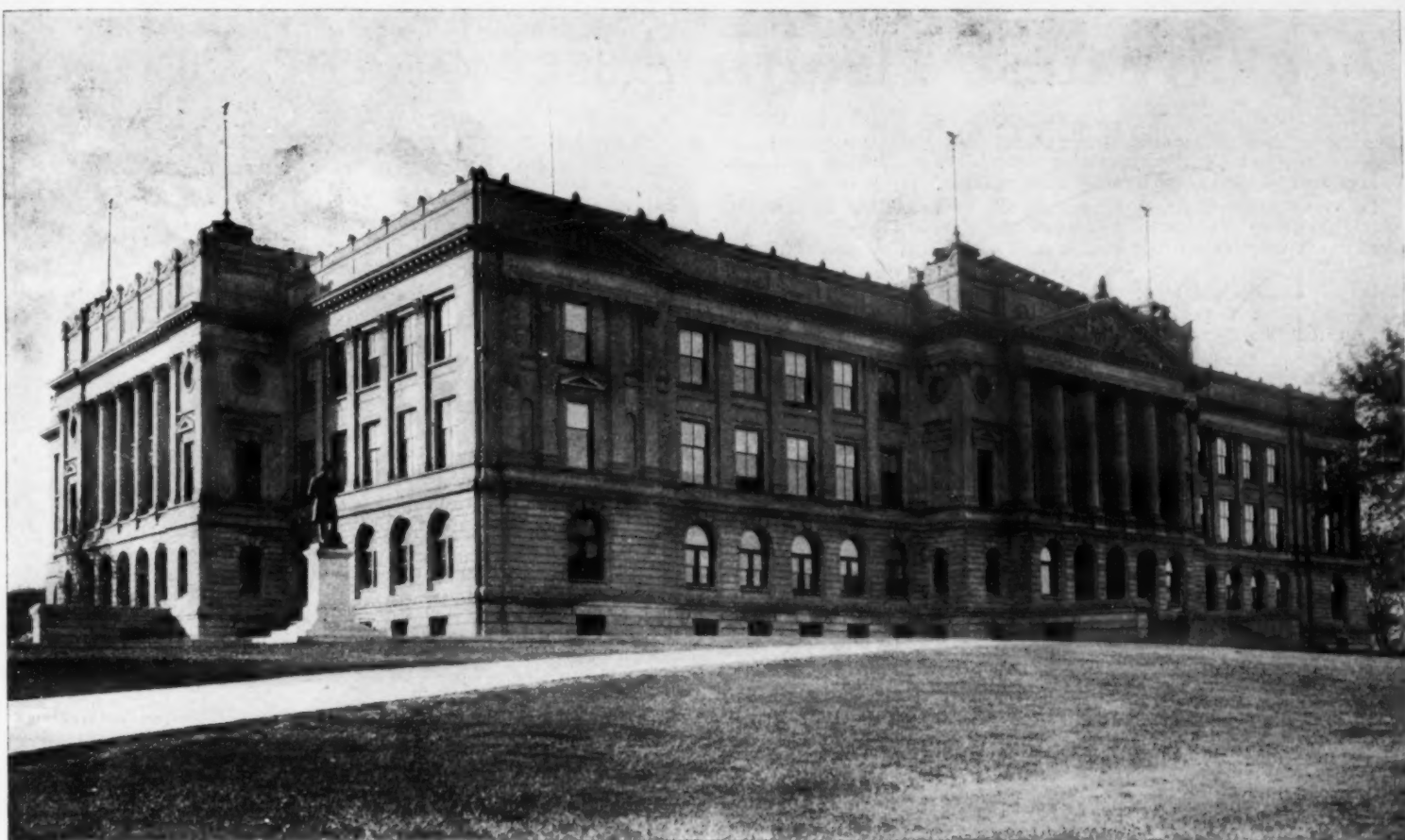
A "good" position means (after salary, for a girl must live), a place where her superior officers will give some consideration to her as a human being, and a lady; where, if necessary, they will help her find a livable home (I wish some of you could see the rooms in which I have seen refined girls live for ten months out of the

twelve); where she will have a little opportunity for social life. Do you ever ask Mrs. Trustee, or any of your women friends to call on a teacher? Women who are in homes of their own, who have lived long in the same town, can scarcely realize, no, let me say they cannot realize, how much it means to a girl to receive a call from a cultured, refined woman who has come for a friendly visit, and not to complain about her spoiled son's progress.

A teacher who "keeps school" five hours of the day, and sends the prescribed reports home at the prescribed time, but who is utterly indifferent to the health, the happiness, the welfare, and the future of the children in her charge, is condemned; yet she is fulfilling her half of the contract just as faithfully as is the school trustee who feels that if he helps see to it that there are "suitable school facilities" (often very meager), and that the teacher's salary is paid, he has faithfully discharged the duties of his office."

No matter how capable and faithful a teacher is, she is human, and she cannot help being affected by her surroundings. A girl who is looking out for the best good of forty girls and boys in about a hundred different directions—health, comfort, happiness, geography, arithmetic, conduct, physiology, basket ball, music, etc., etc., needs all the help she can get from her surroundings. If conditions are too hard for her she will do one of two things—she will let her school work suffer, or she will break down. We do not want her to slacken her school work; we want her to give her very best to our children; aside from any humane considerations we do not want her to break down, because we cannot afford to lose good teachers.

(Concluded on Page 66)



Omaha High School, Omaha, Nebraska

John Latenser & Sons, Architects

There are three essentials of a building material that are possessed by Indiana Limestone in such a marked degree as to render it the ideal stone for school-house construction.

Permanence

There is no other building stone that is more durable than Indiana Limestone. It is entirely immune from deterioration by age, weather erosion or from practically any cause, and is not affected by the corrosive gases of city atmosphere.

Fire Resistance

The true test of fire resistance in any building is the ability of the material to stand intense heat, and, while hot, sudden contact with cold water. Indiana Limestone stands this test better than most building materials and may be considered as fireproof.

Economy

Since 1914 the cost of building has advanced in some cases twice, some three times, and in some even six times. The cost of Indiana Limestone construction during the period 1914-1920 has not increased more than one-third. Thus schoolhouses built of Indiana Limestone are in reality more economical than are those constructed of any other permanent material, and the cost of upkeep is eliminated.

On account of its texture, Indiana Limestone can be embellished with sculpture and carving, to which this stone lends itself more readily and economically than does any other building stone.

*Booklets on Indiana Limestone
will be mailed on request.*



INDIANA LIMESTONE QUARRYMEN'S ASSOCIATION

Box 780

Bedford, Indiana

METROPOLITAN SERVICE BUREAU, 489 FIFTH AVENUE, NEW YORK CITY

The Greatest Health Asset of the School

During at least six months of the school year the warm, wholesome lunch served in a clean and inviting lunch room is the most practical and effective health help the school can provide.

In every State those charged with the responsibility of building or remodeling schools now regard the sanitary lunch room as equipment essential to the health and well-being of the children.

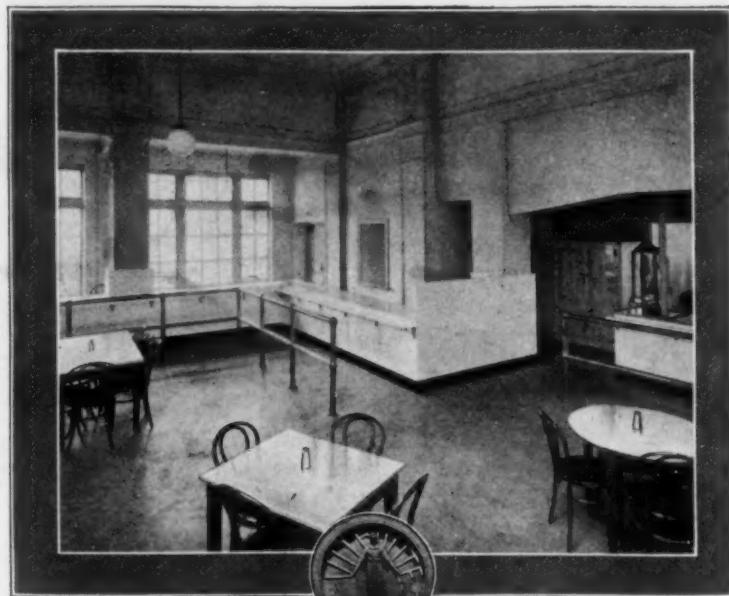
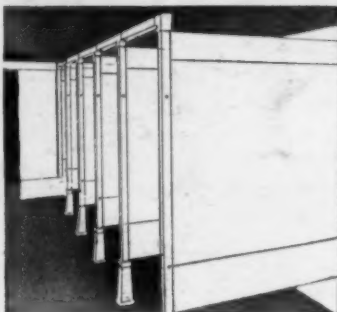
Vitrolite—of glistening whiteness and perfect cleanliness—kept clean by a single stroke of a damp cloth over its non-porous surface—has been selected for counters and tabletops in a large number of school lunch rooms and cafeterias.

In making these installations complete data and plans for the most desirable and economical arrangements have been developed which will prove of value to those contemplating installations.

Vitrolite—as evidenced by its list of prominent users—is the finest equipment of its kind.

THE VITROLITE COMPANY, Chamber of Commerce Bldg., CHICAGO

Vitrolite has an envied reputation as ideal material for toilet partitions and showers. To this the Vitrolite patented self-locking, "boltless, screwless" jointing system has contributed a great deal. Note the size of the Vitrolite slabs. Slabs for wall use are furnished in sizes from 30x84 to 36x84.



This shows how Vitrolite brings everlasting cleanliness to the cafeteria of the East Side High School, Cincinnati, Ohio

VITROLITE

(Concluded from Page 64)

The superintendent of one of the richest counties in a large eastern state told, in my hearing, that he has a district where farm land is selling at one thousand dollars an acre right around the schoolhouse, but the school building itself is not worth a thousand cents, and is a disgrace to the community. Is it right to ask a refined and educated girl to teach there?

The superintendent of education of one of the middle western states himself reports that the state has one thousand schoolhouses without any toilets whatever!

Trustees who are intelligent enough and interested enough to take a periodical like the SCHOOL BOARD JOURNAL are not in danger of such crude sins against their wards. But a menace is a menace, no matter how rude or how elegant the building that shelters it. Defective ventilation, injurious lighting conditions, merciless driving, lack of medical inspection, kill just as surely as do some more primitive ills. Compulsory education too often means that we round up children, who prefer to be out in the open, and drive them into pens where they are at the mercy of bad air, poor light, and contagious diseases. In other words, compulsory education too often means compulsory ill health.

One of the things that makes a teacher's life hard is that we expect too much of her. If children are rude and unmannerly, given to fibbing, or idleness, or anything else that is undesirable, we blame the schools. Yet anyone who is willing to do a little simple arithmetic can see the injustice of this. What proportion of his time does a boy spend in school? If he attends regularly, for ten months in the year, he spends about one hour of every ten

in school, the other nine at the discretion of his parents. Let me put it down in figures: 180x5 hours equals 900 hours in school.

365x24 hours, minus 900 hours in school, equals 7860 hours in a year, nearly nine to one. In states where the school term is shorter the proportion is of course still more pronounced.

Does it not seem as if the one who controls, or ought to control, the child for nine hours out of ten ought to have the burden of responsibility? Some time ago I attended a parent-teachers' meeting in which a woman condemned the school roundly for the way the girls dance, the boys smoke, the smaller ones behave, etc., etc. Up rose a woman who is neither a mother nor a teacher, but who sees children and works with them in another relation. She did not mince words with those mothers. She said in part: "If you women did your duty at home, with your two or three children, less of these problems would reach the school, where the teacher has forty or fifty. If you taught your girls modesty at home they would be modest in school; if you brought up your boys to be clean of speech in all the hours they are not in school, their tongues would not be so ready with the impure word; if you watched your children's evenings you wouldn't have so much time to criticize those who work with them during the day," and much more of the same bitter but wholesome medicine.

Not long since I heard the mother of two children say: "I'll be glad when Grace goes to kindergarten, so she'll learn some manners." This mother has had the four whole years of the child's life, 24 hours each day; the teacher will have her three hours a day, for about half the

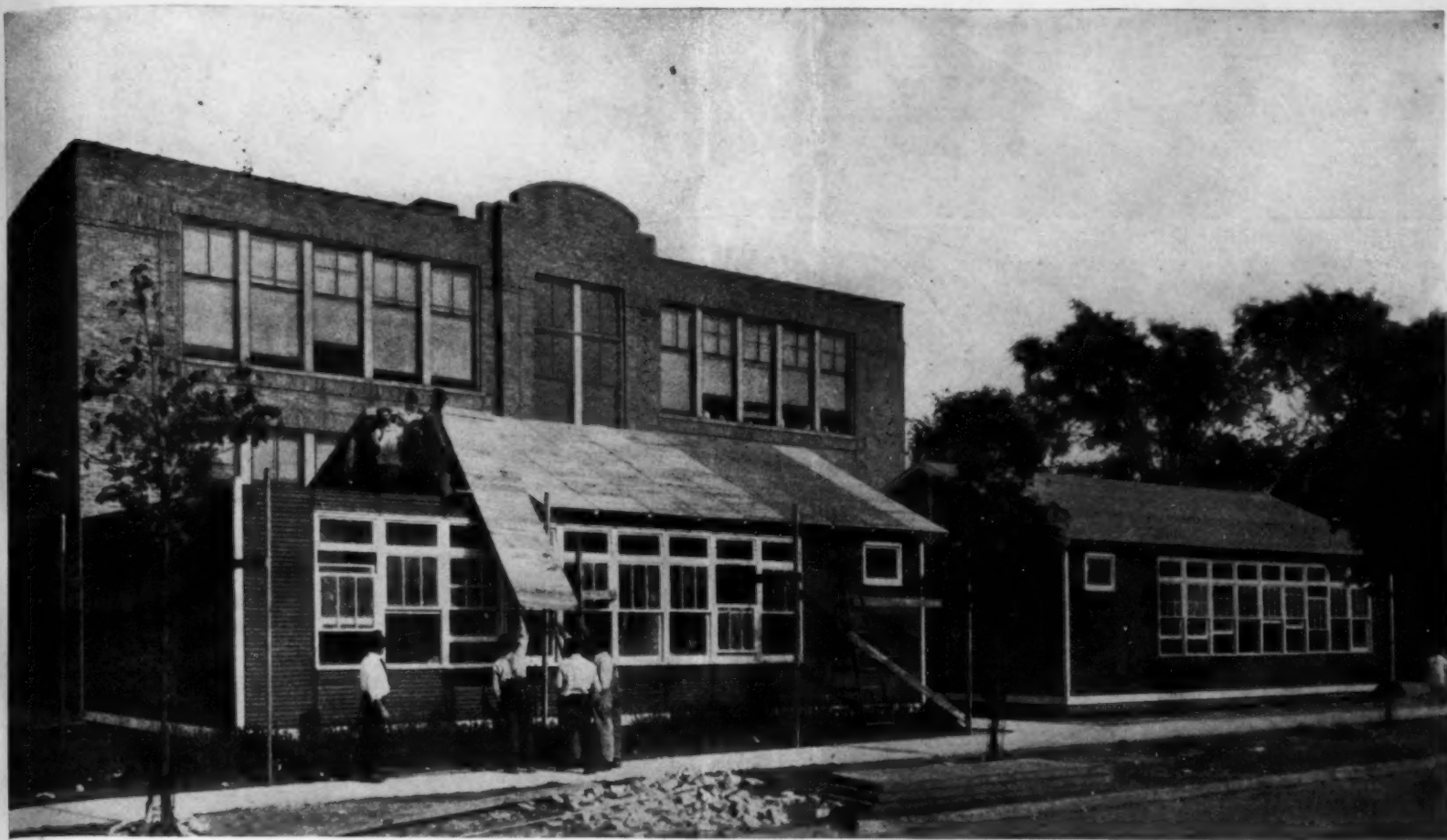
year, yet she is to undo all the bad habits formed in the past four years, and teach good manners not only to Grace, but to thirty-nine others like her.

The trustee is not expected to establish a school of morals for the community, he has a few other duties, as I know trustees. But this he can do: He can stand for sanitary and comfortable school conditions; he can do much toward creating a favorable atmosphere for the new teacher; perhaps he can assist her in finding a home, or induce some women to speak a word of welcome to the stranger within her gates; and above all, when parents and citizens, wholesale, expect the schools to accomplish the impossible, wholesale, he can point out to them that parents have a few responsibilities also, and perhaps get them to see the little problem in arithmetic.

Logansport, Ind. The Logansport schools have recently undergone an extensive reorganization under the direction of Supt. James W. Wilkinson, who took up his work on August 1st. Among the changes and improvements are the establishment of a junior high school. The board of education has expended \$20,000 in shop and laboratory equipment. More than seventy teachers of the Logansport schools have been enrolled in the university extension courses established under the direction of the State University.

Miss Marion V. Morse has been appointed State Rural School Supervisor for Montana.

Worcester, Mass.—Citizens and educators have joined hands in insisting that every child of school age be given a seat in a permanent, well-lighted and adequately heated schoolhouse. The Public Education Association has asked the city authorities to take immediate steps toward relieving the present overcrowded conditions.



The Best Way To Buy Schools

Factory-built complete, "Circle-A" Schools are ready at conveniently located plants for prompt shipment. When the units reach the site just bolt them together. That's all there is to "Circle-A" erection. Doors, windows, plaster walls, blackboards—everything is ready. Think how simple, how economical it is to buy schools the "Circle-A" way. And your satisfaction is permanent. Once built, "Circle-A" buildings do not differ materially from other good frame structures. It is the principle of their erection

that has increased their popularity.

All exterior walls are made of heavy siding outside and full plaster panels inside with dead air space and two thicknesses of paper insulation. Note also that "Circle-A" Schools, which of course require no elaborate erection diagrams or small parts, can be dismantled practically without damage even after long service, and re-erected to meet changed conditions. Write our nearest office for more information about "Circle-A" Schools. We will reply promptly.

THE ALEXANDER LUMBER COMPANY

General Sales Offices: CHAMPAIGN, ILLINOIS

CHICAGO, Monroe Building

NEW YORK, Postal Telegraph Building

FORT WORTH, Texas

⊗ "CIRCLE-A" ⊗

(All construction fully covered by U. S. Patents)

INTERCHANGEABLE UNIT BUILDINGS

The "Empire" Movabled



PATENTED Aug. 22, 1918
July 3, 1917

Write to our nearest representative or to us direct for catalog and prices.

THE E. L. GROVER CO.,
117 East State Street, Trenton, N. J.

SOUTHERN SEATING CO.,
121 Chartres St., New Orleans, La.

WEST VIRGINIA SEATING CO.,
Huntington, W. Va.

KENNEY BROTHERS & WOLKINS,
224 Congress St., Boston, Mass.

NORTHWESTERN SCHOOL SUPPLY CO.,
1401 University Ave. S. E.,
Minneapolis, Minn.

SOUTHERN SCHOOL SUPPLY CO.,
Raleigh, N. C.

E. L. CHRISTIE,
Brandon, Man., Canada

Illinois Office:
HENRY L. FOWKES, Manager
Taylorville, Ill.

W. J. McILWAIN,
Little Rock, Ark.

CLEVELAND OFFICE:
307 Blackstone Bldg., 1436 W. Third St., Cleveland, O.

HOUSTON SHOW CASE & MANUFACTURING CO.,
Houston, Texas

PEABODY SCHOOL FURNITURE CO.,
Topeka, Kans.

ed Adjustable Chair Desk

"The Desk of Exclusive Features"

Great Strength

Exclusive Adjustments

Unequalled Appearance

"The Lifting Top"

The lifting desk top is one of the exclusive features of the "Empire" Movable and Adjustable Chair Desk. Pupils can arise from the "Empire" Chair Desk as human beings should, and can stand erect without first having to double-up like a jack-knife and slide awkwardly into the aisle.

This desk top can also be easily removed and as easily replaced—making the "Empire" Movable and Adjustable Chair Desk as convenient for auditorium and community use as for classroom use.

The "Empire" Movable and Adjustable Chair Desk is unequalled in strength of construction and adjustments. It has absolutely nothing to get out of order—requires no tools to adjust.

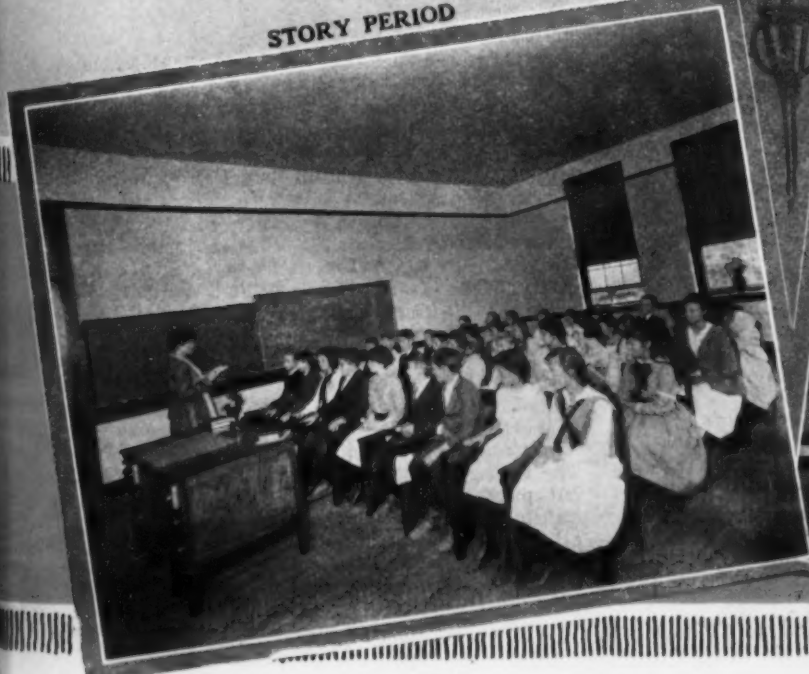
Standardize on "Empire" Movable and Adjustable Chair Desks for your schools.

The "Empire" Movable and Adjustable Chair Desk is made in six sizes to fit the various grades and has five adjustments so that each pupil may be individually fitted.

EMPIRE SEATING COMPANY

ROCHESTER, NEW YORK

STORY PERIOD



SPELLING DOWN



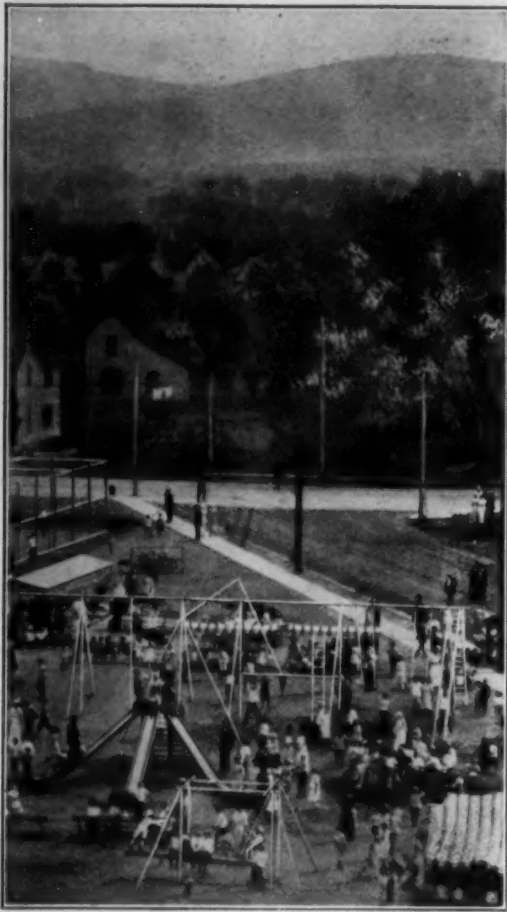
A.

itation

Students are
our exhibit at
during the N.
Feb. 26th

Movable and
Chair Desk will
booths 106

EATING CO.



Section of a typical playground, fitted with MEDART Playground Equipment, located and installed with the assistance of our Engineering Department. No matter what the size of your appropriation, MEDART engineers are always glad to give you intelligent advice on any playground problem.

Scientific Play

A Vital Factor in Education

Scientific play and properly planned playgrounds are vital factors in education because they build the healthy bodies that support active minds. The children for whose welfare you are at least partially responsible will develop quicker and better if they have ample and scientific playgrounds. If you haven't them, they should be provided at once—if you have, extensions may be necessary.

MEDART

PLAYGROUND EQUIPMENT

Built on the results of fifty years' experience by pioneers in the playground movement, and the leaders in perfecting playground equipment rightly fitted to train growing children. Get Catalog "L," really a textbook on playground planning and equipment. Tell us your problems and get the advice of our Engineering Department, without cost or obligation.

FRED MEDART MFG. CO.

Potomac and De Kalb Sts., St. Louis, Mo.

New York
52 Vanderbilt Ave.

San Francisco
Rialto Building

SCHOOL BOARD NEWS

THE BUFFALO BOARD WINS BATTLE.

The school board at Buffalo, N. Y., has been under fire for six months. It was charged with incompetency and extravagance. Political climbers and rebellious teachers, encouraged by two hostile newspapers, led in the fracas. They sought to cast odium upon the administration, spread the story over the country and thus crush the superintendent and the school board.

An impartial investigation followed. The board laid its cards on the table without argument or defense. Its administrative policies and acts were an open book. They spoke for themselves. The result was complete exoneration and a reaffirmation of public confidence.

The animosity of the attack came out of the disciplining of a half dozen teachers who had made a seditious assault upon the administration. In comment here the Buffalo Commercial editorially said:

"Seditious school teachers of Buffalo who are engaged in the business of traducing the local school administration in distant cities will win little sympathy for their cause at home, whether they are successful or not elsewhere. No good ever came from befouling one's nest.

"Especially it comes with poor grace for teachers now on trial for insubordination to the constituted authorities, and who have vigorously denied the charge made against them, to go about the country and scatter broadcast the idea that the Buffalo school board and its superintendent are incompetent and extravagant.

"Buffalo's schools are not in a state of chaos. That Superintendent Hartwell has not permitted

certain teachers under him to commit incredible acts of insubordination with impunity is not a reflection upon his administration, but upon the lawlessness of the teachers themselves.

The press, too, expresses appreciation of the patient attitude maintained by the school authorities. The Buffalo Times says: "Dignity, faith and refraining from disputatiousness, are three things very acceptable to the public. The more they are put in practice in this community, the more progressive and prosperous the city of Buffalo will be.

BOARDS.

—The school board of Cleveland, O., has asked for a ruling on the legality of using school-houses for voting places. It is the purpose of the school authorities to use the polling places as a means of bringing parents in closer touch with the schools, and of permitting the children to see how the election system operates.

—Fond du Lac, Wis. The board has eliminated first-year kindergarten work, also manual training and domestic science in the grades, as a means of keeping within the budget.

—Charging that the University of Louisville is not a moral force in the city of Louisville, Ky., a protest has been made against teachers and pupils conducting a campaign for the proposed university bond issue. It has been asked that the board prevent the distribution and wearing of tags urging the bond issue by teachers during school hours.

—Mr. James E. Addicott has been reinstated as Principal of the Polytechnic High School at San Francisco, Calif., following a ruling that the board had exceeded its power in dismissing the principal without cause.

—Harrington, Wash. The school board has given permission for dances to be held in the school gymnasium.

—A motion to change the date of regular school elections to combine them with general municipal elections, was opposed and voted down at a general session of the grade school educational conference held in December at Seattle. The members of the Seattle board held that there were too many elections in the city and that the school vote was disproportionately small.

—The duties of county boards of education of Kentucky, chosen at the November election under the recent state law, have been outlined in a communication of State Supt. George Colvin. The county boards which are composed of five members, will take office in March, 1921.

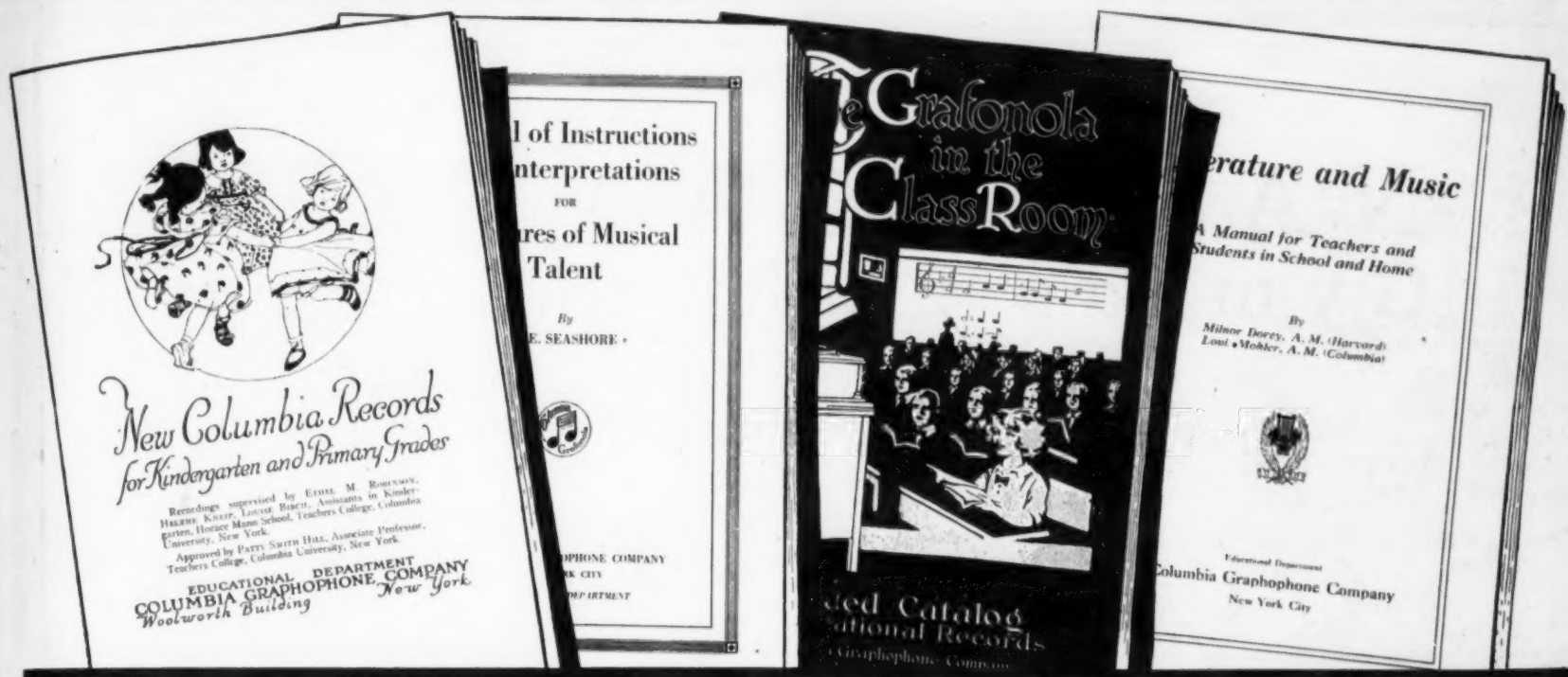
The county boards will appoint a county superintendent who will take office in January, 1922. His work will be confined almost exclusively to the rural schools as the law exempts cities of the first four classes from the supervision of the county superintendent. The boards will also name trustees. Teachers will be appointed by the board upon recommendation of the superintendent.

The procedure which the boards must follow in organizing are outlined. The members of the board must elect one regular chairman and a vice-chairman. At least one regular meeting should be held each school term and special meetings will be held as the superintendent, or a majority of the board may order. Regular meeting days shall be designated at the first meeting of the board.

The boards are to determine educational policies of the county and to describe the regulations for the conduct and management of the schools subject to the by-laws and policies of the state board, and with the consent and advice of the county superintendent. The boards may appropriate funds when the majority agrees. Provision is made for a county school budget and for the fixing of the school tax rate. The fiscal court must make the levy fixed by the board of each county.

—Yakima, Wash. The school board has adopted a policy that a year's work in the high school will be required before a pupil may expect to receive a diploma, regardless of how many outside credits may have been presented. The change in policy has been necessary to keep out pupils from weaker districts, who come to Yakima for a few weeks' work and then receive a high school diploma. It is held that the school authorities have little or no knowledge of the particular students' preparation or capacity when this practice is resorted to.

(Concluded on Page 73)



Children learn to listen that they may later listen to learn

Music—good music—every day in both school and home means more to the mental and spiritual development of a child than any other single influence. On Columbia Educational Records for the school and home you find not only the best of music by the best artists, but the kinds of music suitable for all ages and periods

of development.

Children respond to music by bodily or verbal expressions. The first free response is the sign that the child is interested and beginning to learn. After that, it is a pleasure to both the child and the teacher to proceed to distinguishing kinds of music.

The *Children's Record List* helps you to guide their first steps on this pleasant musical path to learning.

Manual of Instructions and Interpretations for Measures of Musical Talent, by Professor C. E. Seashore, enables you to gauge their individual ability.

The Grafonola in the Class Room is a complete graded Catalog of Columbia Educational Records.

Literature and Music explains the close relation between these two arts.

All booklets and catalogs free.

Any Columbia dealer will gladly place a Grafonola and Pushmobile in your schoolroom on trial, without obligation to you, that you may test every claim that has been made for the Columbia School Grafonola and Pushmobile.

**Literature as listed in the coupon
will be mailed on request**

Educational Department

**COLUMBIA GRAPHOPHONE COMPANY
Woolworth Bldg., New York**

Canadian Factory: Toronto

Teachers who are unable to secure school records locally may send orders direct to the Educational Department, Columbia Graphophone Company, Woolworth Building, New York City.



Clip this coupon and mail today

COLUMBIA GRAPHOPHONE COMPANY
Educational Department
Woolworth Building, New York City
Please send me the following literature:
(Check subject desired)
Children's Record List ☐
Musical Measurement Manual ☐
Educational Record Catalog ☐
Literature and Music ☐

Name
Town
State
Grade (AJ-Feb)



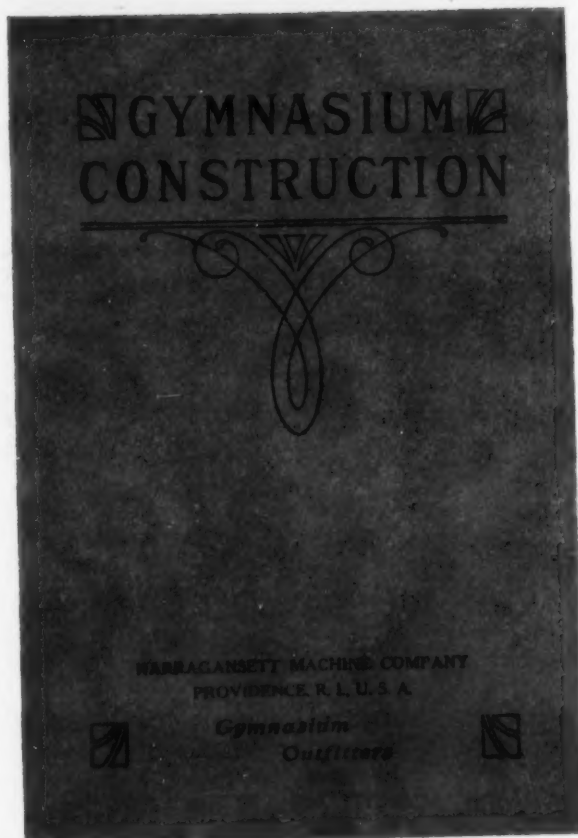
**Columbia School Grafonola
with Pushmobile**

Doors fitted with lock and key.
Seven Shelves for records.
Reproducer, winding crank, and turntable may be locked in pushmobile.
Either Oak or Mahogany.

NARRAGANSETT

Gymnasium Equipment

DON'T
BUILD
MISTAKES



80 Pages — Free

FRIENDLY
SERVICE

SEND
FOR THIS
BOOK

NARRAGANSETT MACHINE CO.

CHICAGO
1504 Monadnock Block

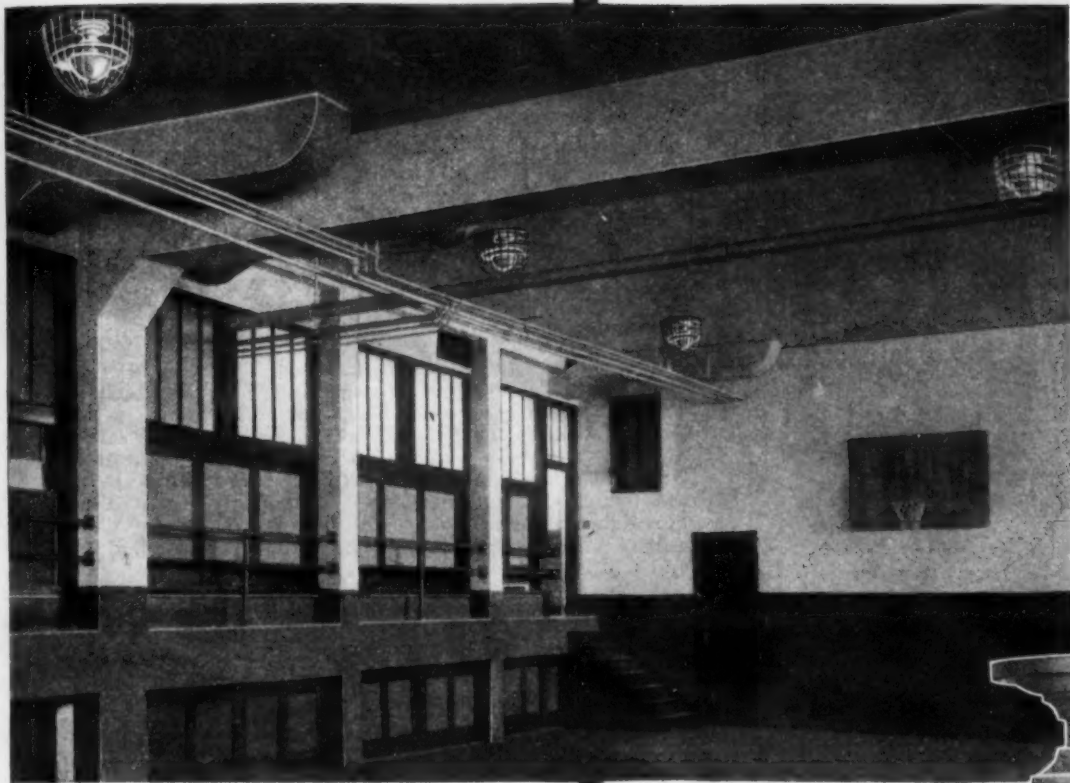
PROVIDENCE, R. I.
Established 1882

NEW YORK
52 Vanderbilt Ave.

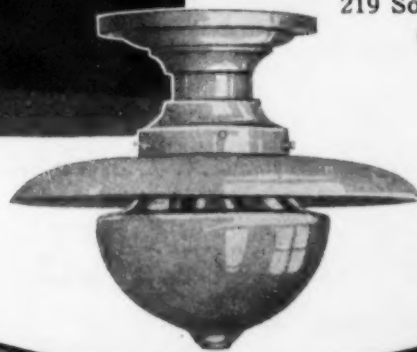
WRITE FOR CATALOGS

APPARATUS

LOCKERS



The close-to-ceiling type of Denzar shown at the right is usually used in gymnasiums, corridors and stairways. The addition of the Denzar Wire Guard prevents breakage when the unit is struck by basket balls, hand balls, ladders, etc.



Physical Development and Sight Saving

Denzars are used in many of our modern schools to preserve the eyesight of youth, because the soft, even light of Denzar eliminates eye-strain, and makes greater progress possible.

In gymnasiums Denzars are used because good lighting is necessary to develop speed and accuracy in athletic activities. The Kingsley Grade School Gymnasium at Waterloo, Iowa, is equipped with Denzars protected with Denzar Wire Guards.

If you wish to know more about Denzar lighting in school buildings, see your local electrical man or write direct to

Beardslee Chandelier Mfg. Co.

219 So. Jefferson St.,
Chicago.

(Concluded from Page 70)

The United States district court at Detroit has issued an opinion upholding the Baker textbook act of 1919. The Baker act requires publishers of school textbooks to make a contract with the superintendent of public instruction agreeing to sell their books in Michigan at a price as low as that established in any other state. It also requires school boards to purchase school books for sale to pupils directly or thru a book seller acting as their agent. The Macmillan Company sought to have the attorney general and superintendent of public instruction enjoined from enforcing the act, claiming the law unconstitutional.

By the terms of the South Norwalk, Conn., charter the city officials who incur debts against the city for which there are no appropriations or for which there are insufficient funds become personally liable and are subject to arrest. The school board was obliged to meet the salary situation and other increased expenditures for the conduct of the schools with the prospect that before the school year is ended next spring the appropriation will be exhausted. Legal talent has been employed by the school board to weather the storm and keep its members out of jail.

The school authorities of the state of Illinois have undertaken a campaign in the interest of more liberal support of public education. In this direction, educators have been considerably encouraged thru the stand taken by Governor-Elect Len Small in his recent inaugural address in which he pledged his support to the educational program of the state. Gov. Small said, in part:

It was ordained in the first American charter for the government of the territory in which we live that schools and the means of education should forever be encouraged. This sentiment was echoed in our State Constitution, which declares that "The General Assembly shall provide a thoro and efficient system of free schools whereby all children of the state may receive a good common school education."

Our state has never failed in its duty in this regard, and it will not fail now. On account of

the importance and bigness of this subject, I shall reserve definite recommendations until the developments of the legislative session shall show how far we can go in the adoption of further legislation.

The position of the teacher in our social fabric is one that needs thoro readjustment. Underpay and ingratitude on the part of the public for the invaluable service rendered to the state by the teaching force employed in our public schools has been, too often, the common lot of these faithful servants engaged in the basic work of true Americanization. There should not be an underpaid school teacher in the state of Illinois.

Salaries and school equipment should be such that the very best and highest types of men and women are attracted to the profession of teaching.

The common schools, the normal schools and the state university are all seeking to enlarge their respective fields. If we are to extend their usefulness, we must be prepared to increase their appropriations. I say now, as I said before my election, that our educational institutions are the foundations of good government and of the well-being of our state. Their improvement should be constantly sought and their growth should be encouraged, for with them lies the future stability of our commonwealth.

—Supt. W. L. Ettinger of New York City has announced that the board of superintendents has apportioned the grant of \$50,000,000 on the plan of a grant of \$77,000,000 and will proceed with enough money to meet the needs of the schools until next September, when the remaining \$27,000,000 will be appropriated by the board of estimate.

The new school in course of erection at Richmond Turnpike and Slasson Ave., Borough of Richmond, New York City, has been named the Bardwell School, after the late District Superintendent.

Cleveland, O. The school board has made three major requests for financial relief to the Cuyahoga County legislative committee. It is asked that the depository law be changed to

provide more depositories for school funds; that the mill levy be changed so that the public library board may not draw from school funds, and lastly, that money paid into the state be turned back to the Cleveland district on the basis of school enumeration rather than on attendance.

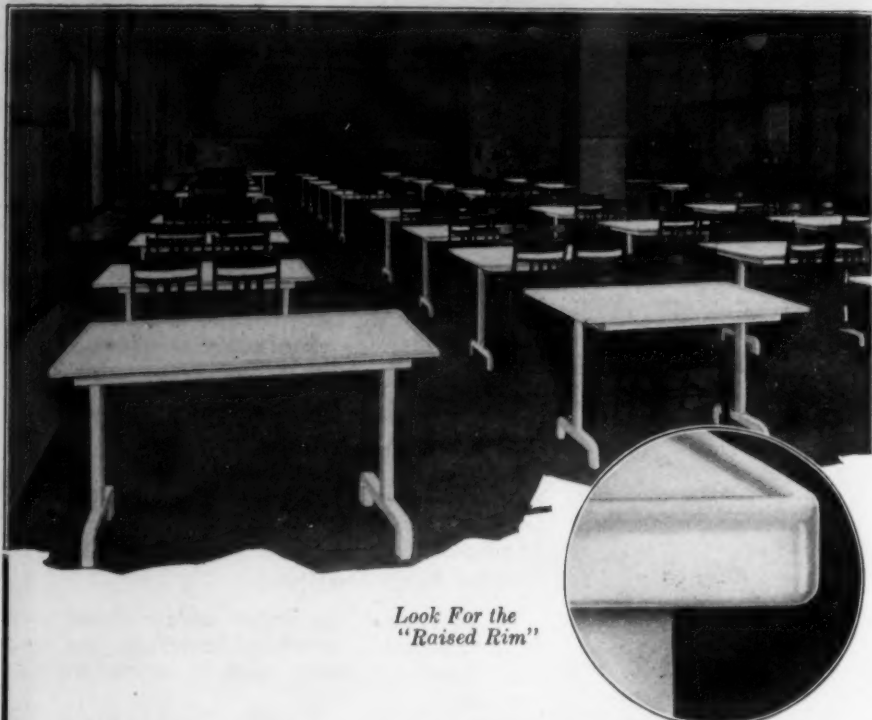
Canonsburg, Pa. The board has employed armed watchmen to guard the school buildings from incendiaries. The watchmen are clothed with authority to make arrests in case of necessity.

The average cost of school buildings in Ohio has increased during the past seven years from \$203 to \$389 for each pupil, according to a report of the state education department. In other words, a building for one hundred pupils which cost \$20,300 in 1914, cost \$38,900 in 1920. It is estimated that the rural schools have advanced in cost more than city buildings.

The distribution of school funds for the state of Indiana was accomplished in January, with a shrinkage of more than \$66,000. The total amount distributed was \$1,639,458, and the per capita for each enumerated child was \$2.09. The division of funds is based on the total number of school children enumerated in the state, which is 784,430.

—The union school building at Lyons, N. Y., which was built some 32 years ago at a cost of \$60,000 was burnt to the ground in December last. It was insured for \$55,000. It will probably cost from \$150,000 to \$200,000 to replace the building at the present cost of labor and material. The fire which was of unknown origin caused the death of two girls, 12 and 13 years of age, who were in the gymnasium at the time. It was fortunate that the fire which was discovered at five o'clock did not occur two hours earlier as there might have been a much greater loss of life, the school being attended by 900 pupils.

At the Potter School, Pawtucket, R. I., a movie machine has been introduced. Films dealing with health and other studies will be employed.



Look For the
"Raised Rim"

MAIL THIS COUPON TO-DAY!

We will send you our latest catalog showing this and many other types of Sani-Onyx and Sani-Metal, school and industrial lunch room equipment. Our engineering department is at your disposal. We have arranged space for many schools and can do the same for you. Send us the size of your space and we will forward blueprint layouts free of charge to suit your requirements. Send coupon today.

These materials may be purchased from local distributors. Our export department is completely equipped to handle foreign business

Sani Products Co.

1822 Sani Bldg., Chicago, Ill.

Up-to-date Schools

Are you running an up-to-date school? Do your pupils have to carry cold lunches that become uninviting by lunch time? Give them a chance, by providing hot, wholesome lunches that are full of warmth and energy. Install a sanitary lunchroom where they can secure a good meal at a minimum cost. Sani-Onyx Tables with Sani-Metal Bases will meet all your requirements.

Sani ONYX

Sani-Onyx Table Tops have a "Raised Rim" which prevents chipping and keeps dishes from sliding to the floor. No table cloths needed. Think of the saving in laundry bills alone. Simply wipe the surface with a damp cloth and they will always be clean and inviting. Sani-Metal Bases are made of fine grained cast iron, heavily coated with porcelain enamel. No projections or crevices for dirt to collect. Look better than the ordinary varnished kind and will last a lifetime.

Sani Products Co.,

1822 Sani Bldg., Chicago, Ill.

Gentlemen: Please send me your latest catalogue showing SANI-ONYX and SANI-METAL, school and industrial lunch room equipment to accom-

modate pupils. The space is ft. by ft.

Name

Address

NEWS OF SCHOOL OFFICIALS.

—Mrs. F. A. Peterson is the first woman to be elected a member of the board at Hoquiam, Wash.

—Mrs. Geo. W. Lueck has been elected a member of the board of education at La Crosse, Wis.

—Mrs. Mabel R. Brown is completing the twenty-first year of her service on the school board of Portland, Me. Mrs. Brown who was appointed when women were first eligible to membership, has been reelected every two years.

—Dr. R. B. Jones has been elected president of the board of education at LaPorte, Ind., to succeed M. R. Sutherland, resigned.

—Joseph Nicola Francolini, a former member of the New York board of education, and president of an Italian bank, died at his home in December, at the age of 65. Mr. Francolini was one of the members of the first Central Board of Education and served from 1902 to 1910. He received a college education in Italy and had studied law at the New York University.

—Mrs. B. B. Munford is the first woman to be elected to the school board at Richmond, Va. Mrs. Munford has been prominently identified with educational work in Virginia.

—After all changes made necessary by the recent elections the Orleans Parish School Board of New Orleans has now been reorganized. It is composed of Daniel J. Murphy, president, William Frantz, Percy Moise, Henry C. Schaumburg and Mrs. A. Baumgartner. The passing of the old board developed some political bitterness. Mrs. Baumgartner and Mr. Moise being elected by the new administration endeavored to control the board and Mrs. Baumgartner was nominated for President but Mr. Schaumburg cast his vote with the hold-over members, Messrs. Frantz and Murphy, and Mr. Murphy was elected. The board then proceeded to adopt resolutions to retain at the head of the school J. M. Gwinn as superintendent, and all present employees.

The new members endeavored to elect John R. Conniff, now a member of the State Board of Examiners to the office of Superintendent, but

Mr. Schaumburg voted with the old members to retain Mr. Gwinn and his force.

—Mr. H. N. Leighton, president of the school board at Minneapolis, Minn., who has just completed his twelfth year as a school board official, will retire on July first. Mr. Leighton has seen the school budget grow from \$2,400,000 in 1908 to approximately \$5,000,000 for next year.

—Mr. Robert A. Wilson has been appointed secretary of the board of education at Spokane, Wash., to succeed E. A. Thomas. Mr. Frank J. Williamson was also elected superintendent of school buildings.

—Mr. Charles D. Hine, formerly secretary of the State Board of Education of Connecticut, has been placed on the retired list, with a pension of \$2,708.

—Dr. John M. Withrow has been reelected president of the board of education at Cincinnati, Ohio.

—Dr. I. N. Bloom, for more than a dozen years a member of the board of education at Louisville, Ky., has been elected as president. Dr. Bloom succeeds Dr. A. B. Weaver.

—Dr. Howard B. Gorham has been reelected as President of the board at Providence, R. I.

—Mr. Sidney M. Colgate has resigned from the board of education at Orange, N. J.

—M. R. Sutherland, president of the LaPorte, Ind. city school board, has resigned, ill health being given as the reason. The city council has selected Dr. R. B. Jones to fill the vacancy.

Mr. G. C. Alderman of Lake Park, Ia., has been elected superintendent of schools at Newton to succeed Harry P. Smith, who goes to Lawrence, Kans.

Mr. James Dugan has been named as assistant superintendent of schools at Cambridge, Mass. He succeeds Charles M. Herlihy, resigned.

—Supt. Sidney Pickens of Batesville, Ark., has entered upon his twelfth year at Batesville. Mr. Pickens has also been reappointed a member of the State Board of Education for a six-year term.

PERSONAL NEWS of SCHOOL OFFICIALS

Death of Mr. Cleland.

John E. Cleland, who for seventeen years was business director of the Indianapolis school city, died recently at his home. He had been seriously ill since the first week of October.

Mr. Cleland was elected to the office of business director of the schools in January, 1900, when the Indianapolis school board was reorganized under an act passed by the 1899 session of the state legislature. He was the first business director of the school city. He retired, at his own request and because of his health on April 10, 1917. Under his administration the annual business of the school city increased from \$724,500 to more than \$2,178,000. In the seventeen years, 335 classrooms were added to local school facilities, together with 28 assembly halls; more than \$80,000 was paid out for street, sidewalk and sewer improvements; \$550,000 was spent for new and additional ground for fifty-three schools; \$2,500,000 was spent for new buildings and additions, and \$750,000 spent for improving old buildings. The central library and eight branch libraries were erected and four additional branch libraries rented.

Mr. Cleland was elected to the office by five separate boards of school commissioners. On his resignation, the board adopted resolutions expressing appreciation for his "efficient and untiring efforts for the people of this city."

Before becoming business director of the schools, Mr. Cleland was employed as an expert to investigate books and records for the attorney-general of Indiana in the Vandalla railroad case. He was active in the affairs of the Grand Army of the Republic and the Loyal Legion.

SCHOOL *The DeLuxe* SCALES

U. S. STANDARD WITH MEASURING DEVICE

Manufactured complete from foundry to finishing room (not assembled). Every scale bears the unqualified guarantee of Mason, Davis & Co.—Builders of U. S. Standard Scales Since 1863.

THE advanced method of coordinated physical and mental training finds a definite place in its educational program for this well-known, efficient weighing and measuring scale.

Because school administrators and teachers everywhere have come to realize that attention to the scholars' health is important at all times, progressive schools in city and country are installing the De Luxe as part of their scientific equipment.

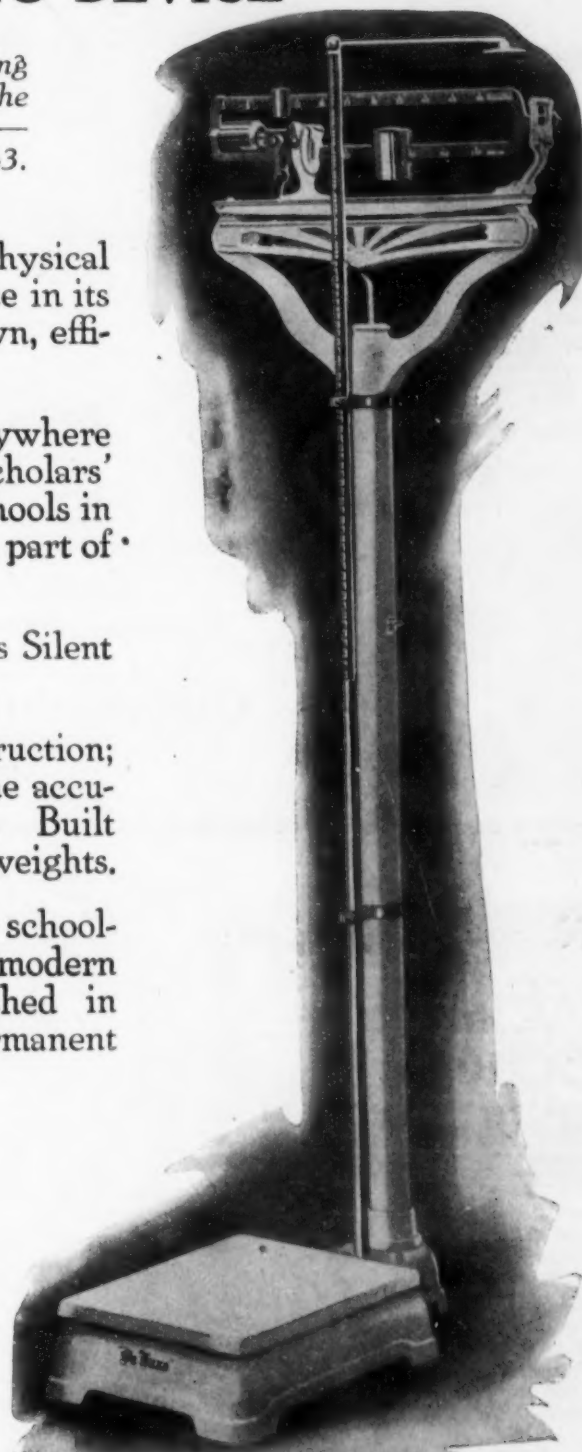
It has been rightly termed "The School-room's Silent Sentinel of Health."

A highly perfected scale; of simple construction; beautifully finished and equipped to determine accurately the weight and height of every pupil. Built compactly and of sturdy design with no loose weights.

The De Luxe is a genuine improvement for any school-room and is proving a distinctive feature in all modern schools. A practical, durable machine—finished in our special snow-white or silver-gray permanent enamel with nickeled trimmings.



Showing a "close-up" of the De Luxe measuring device, marked in legible $\frac{1}{4}$ -inch graduations from 2 feet 6 inches to 6 feet 6 inches, making it possible to measure accurately the smallest child or tallest adult. This distinctive feature of the De Luxe is a decided improvement over the old-fashioned measuring "rod" which would not permit of accurately measuring the very small child.



Capacity—300 lbs. by $\frac{1}{4}$ lb. Clearly marked nickeled beams (no loose suspended weights). Height over all 58 inches. Floor space, 24 in. x 13 in. Platform $13\frac{1}{2}$ in. x $10\frac{1}{2}$ in. (Rubber mat if desired). Handled by leading dealers everywhere. Descriptive matter and prices gladly sent on request.

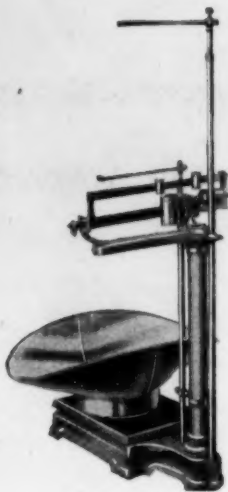
Manufacturers of the
well-known
The Faultless
INFANT WELFARE SCALE

Chicago Scale Co.
ESTABLISHED 1863
MASON, DAVIS & CO.
7700-7740 So. Chicago Ave.
(Grand Crossing)
CHICAGO

School officials will appreciate the guarantee of service behind every De Luxe scale, backed by the Mason, Davis long-standing reputation of more than 50 years.

CONTINENTAL SCALES

ARE THE
Most Modern and Latest Designed Scales
BUILT ESPECIALLY FOR
School Use



No. 526

No. 526
Low Pillar Portable Scale for rural school work. Can be easily carried about in Ford car. With or without detachable measuring rods and scoop for babies.



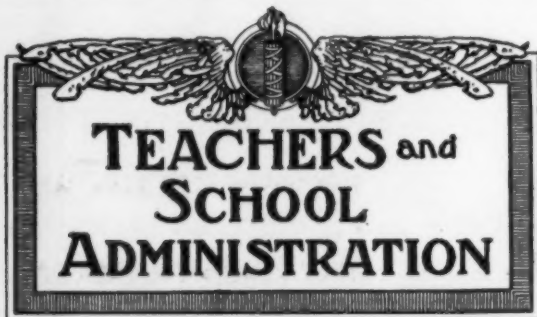
No. 225

No. 225
With castors where Scale is to be moved from one room to another. Both Beam and Measuring Rod can be operated from the back. Teacher can remain seated while operating this Scale.

We Do Not Claim
These Scales To Be Half a Century Old
But We Do Guarantee
Latest-in-Design::Most Convenient::Accuracy at All Times
Quality Above Price
Do Not Accept Substitutes—Get the Original

Continental Scale Works

2124-2126 West 21st Place
Chicago, Ill., U. S. A.



—An increase of \$20,000,000 in the Pennsylvania school appropriation has been urged in the report of the legislative committee which was adopted at the seventy-first meeting of the State Educational Association. The legislative committee approves the Finegan plan as a substitute for the Woodruff teachers' bill. The Finegan plan calls for \$7,500,000 increases in salaries, \$3,000,000 to complete the retirement fund and \$4,000,000 for the extension of the school term.

—The teacher shortage in Texas presents an alarming problem according to School Life. During the session of 1919 and 1920, Texas suffered a shortage of about 2,000 teachers. About eighty per cent of the teachers in rural schools are mere boys and girls and about fifty per cent of the country teachers hold only a second-grade certificate. Many persons taught during the last semester without certificates, in open violation of the law. About 50,000 children are not attending school because there are no teachers, and 40,000 are taught by those whose preparation is not above that of the eighth-grade.

—Dallas, Tex. The board of education has denied a request of the high school teachers' association that the city's portion of the \$4,000,000 emergency fund appropriated by the legislature, be given to the teachers as a bonus. Dallas's share of the \$4,000,000 appropriation which is distributed on a per capita basis, is \$100,000. The members pointed out that the emergency appropriation had been anticipated when the

present salary schedule was adopted, and that it had been taken into consideration when the flat raise of \$400 was granted.

—The average salary of an elementary or high school teacher of Connecticut, during 1919-20 was \$1,000. In one hundred towns, the average wage was only \$761.

A survey made by the State Labor Department and a Hartford employment bureau shows that the average wage of bell boys in hotels is \$1,180 and tips. The average wage of barbers is \$2,500, that of carpenters \$2,288, and that of day laborers \$1,372.

A study of the salaries paid in the different states is interesting. In one town the average salary of all teachers is \$1,600; in two, \$1,500; in one, \$1,400; in six, \$1,300; in five, \$1,200; in eight, \$1,100, and in eighteen, \$1,000. In 35 towns the average salary is just one-half as large as in the best town. In 72 towns, the average salary was less than half as large as in the best town, and in six towns it is less than one-third as large.

—Richmond, Va. A committee of the Richmond Teachers' League is carrying on an active salary campaign. An additional appropriation of \$370,000 is being sought from the city council to put in effect the N. E. A. schedule of salaries.

—A Teachers' Hospital Service. The local teachers' organization of Detroit, Mich., maintains a hospital service for the benefit of its members who may be in need of medical care. All regularly appointed teachers are eligible to membership, and may become members of the hospital association by paying the annual dues of \$1 a year. No member whose dues are in arrears is eligible to participate in the benefits, but members may be reinstated by paying back dues on or before November first of the ensuing year.

Members who need hospital or medical care may enter any regularly established hospital and the association will pay \$3.50 a day, not exceeding 21 days, for each day spent in the hospital.

—East Chicago, Ind. Salaries of grade teachers at present range from \$1,200 to \$1,800; those of junior high school teachers from \$1,500 to

\$2,500, and those of senior high school instructors from \$1,600 to \$2,700. Principals are employed for twelve months, with salaries ranging from \$1,800 to \$3,500.

—Four teachers' associations of New York City have formed a league. The league which is composed of representatives of the Teachers' Interests Organization, the Professional Elementary Teachers' Association, the Teachers' Welfare League and the Teachers' Union, will co-operate along definite lines for the welfare of teachers. It is held that the Federation of Teachers' Associations and the Teachers' Councils do not adequately represent the teachers.

—John F. Ahearn, a New York State political leader, died at his home in New York City from an attack of pleurisy. Mr. Ahearn was the author of the first state law enacted to establish a minimum salary for school teachers in Old New York City, the Bronx and Brooklyn. The law which passed in 1898, was signed by Governor Black and Mayor Van Wyck.

—Maximum salaries of teachers in the rural schools of Missouri show an increase in 49 of the 114 counties of the state, according to State Supt. Sam A. Baker. The maximum and minimum salaries paid in 53 counties during 1920-21 and 1919-20 have been indicated in a table of comparative figures prepared by Mr. Baker. In one county, the maximum salary ranged from \$110 to \$125 for the year 1920, with the minimum at \$75. In two counties, the maximum remained the same, at \$100 and \$125, and in two other counties there was a reduction in the maximum salary. It is believed a larger revenue is needed to preserve what has been achieved and to substantially increase the efficiency of the schools.

—Ansonia, Conn. The board has granted increases of \$150 in salary to all teachers.

—Lynchburg, Va. Increases of 25 per cent have been granted to all teachers.

In Charlton, Mass., the dog license fund will be used to make up the deficit of the school fund. Hereafter the schoolmarm of that town will be less apt to shoo stray dogs.

Costs less than Water Color Wears twice as long

BOARD OF EDUCATION OF LOUISVILLE
OFFICE OF THE BUSINESS DIRECTOR

J. EARL HENRY
November
Second,
1918.

Mr. J. F. Downey,
Superintendent of City Buildings,
Cambridge, Mass.

Dear Sir:

About two years ago we purchased enough INTERIO to finish a room in two different schools, and at the same time started an investigation of the results secured by the use of the material in other cities. As a result of this investigation, which included visits of inspection to Washington and New York, and personal conferences and correspondence with Business Managers of several cities, we purchased this summer, enough INTERIO to paint three of our schools. We have not yet completed one of the buildings, but on all of the work done, we have followed the manufacturer's directions strictly and the results have been most gratifying.

The cost has been at least one-third cheaper than the lead and oil paints which we have mainly been using heretofore. I now consider, as I did not until recently, that INTERIO is cheaper in the long run than water color. I have come to this conclusion because INTERIO will last fully twice as long as the water color and can be applied cheaper when you consider that it takes longer to wash off water colored walls for refinishing than it does to apply paint, and that you have to count on applying water color at least twice as often as INTERIO.

Trusting that this information will be of service, I am

Very truly yours,

J. E. Henry

Business Director,
Board of Education.

"Save the surface and
you save all" - Paint & Varnish

HOCKADAY'S INTERIO

The washable Wall Finish for all Interiors

Ideal for school walls and woodwork, because it wears like iron and washes like tile. Ink, grease, soot, chemical discolorations, pencil and finger marks can be removed without a trace. INTERIO has been on some

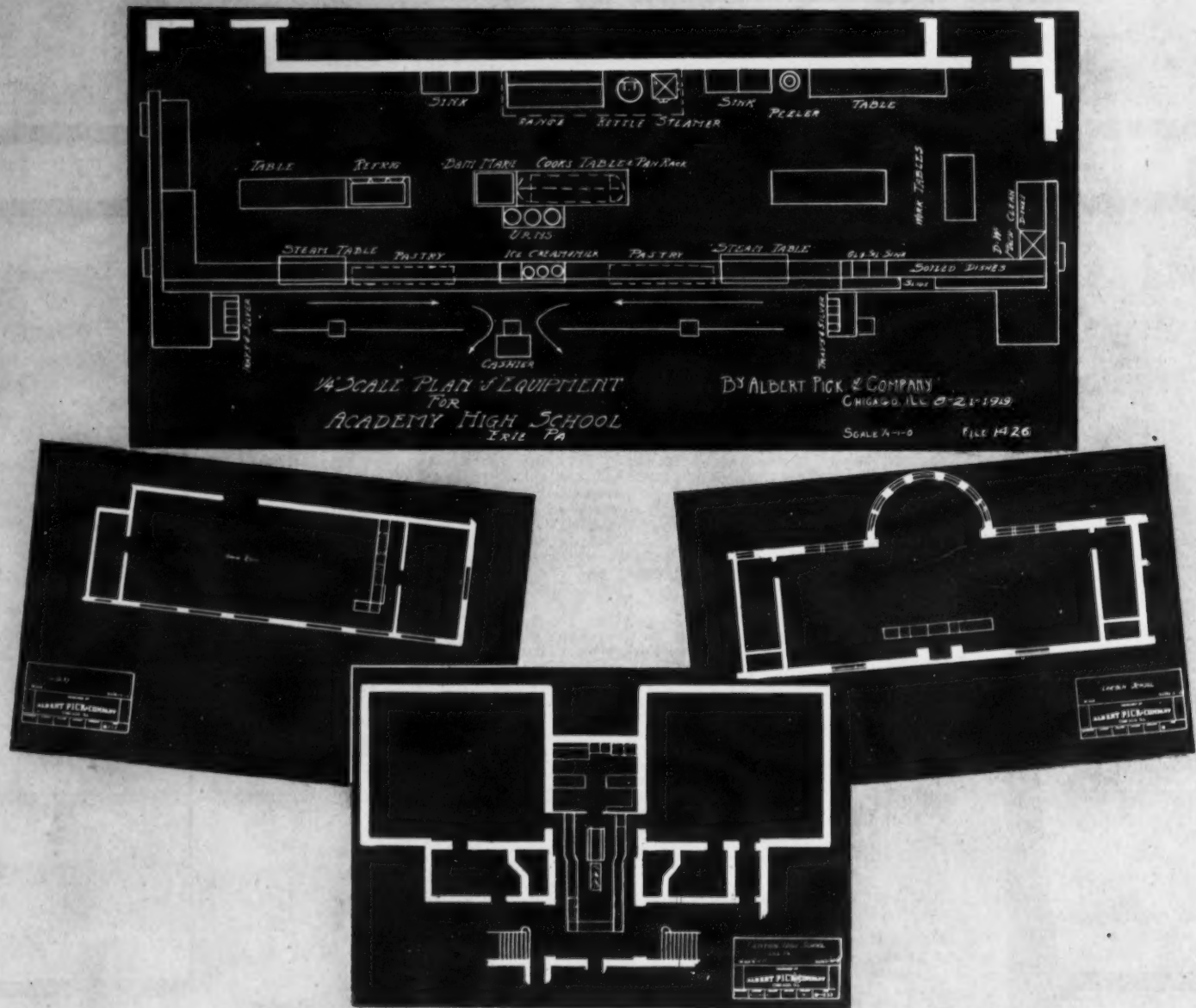
walls 10 years—still too good to renew. Actual tests prove it goes $\frac{1}{3}$ farther, saves $\frac{1}{3}$ painter's time and *costs least on the wall!* Investigate the experience of other school boards with INTERIO. Names on request.

Write for Painting Survey: Without obligation we will submit color scheme, estimate, and give you facts you should know before you paint—the result of 15 years' experience specializing on school interiors.

ADDRESS DEPT. S. B.

1823 Carroll Ave. **THE HOCKADAY COMPANY** Chicago, Illinois

SCHOOL LUNCH ROOMS



ERIE ACADEMY HIGH SCHOOL
ERIE, PENNSYLVANIA
LUNCH ROOM EQUIPPED
COMPLETE BY
ALBERT PICK & COMPANY
CHICAGO



Every New School That You Build— Grammar or High—Should Provide For the Feeding of Its Pupils

This is a matter of prime consideration which has received the strong endorsement of such public bodies as the United States Department of Agriculture, the United States Public Health Service, and the University of Wisconsin; and by such men as Herbert Hoover. It merits the most careful study by every superintendent, board member and other interested public official. The City of Erie, Pennsylvania, when considering the question, called in the representatives of Albert Pick & Company, and turned over to them the complete handling of the cafeterias in their four splendid new schools—the Erie Academy and Central High Schools, and the Lincoln and Gridley Grammar Schools. The resulting installations are among the most practical and beautiful to be found anywhere in America. The same facilities which we placed at the service of the City of Erie are available to every school board in America. We sell standardized outfits at astonishingly low prices, or we install complete, elaborate lunch rooms, capable of feeding thousands. Our standardized small lunch rooms seat from 25 to 200. Our elaborate new book on School Cafeterias will be of great interest to those contemplating new school buildings. Please ask for Book No. Y131.

ALBERT PICK & COMPANY

208-224 WEST RANDOLPH STREET, CHICAGO, ILLINOIS

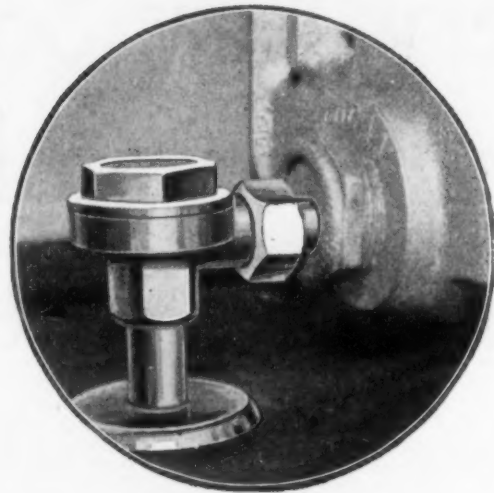
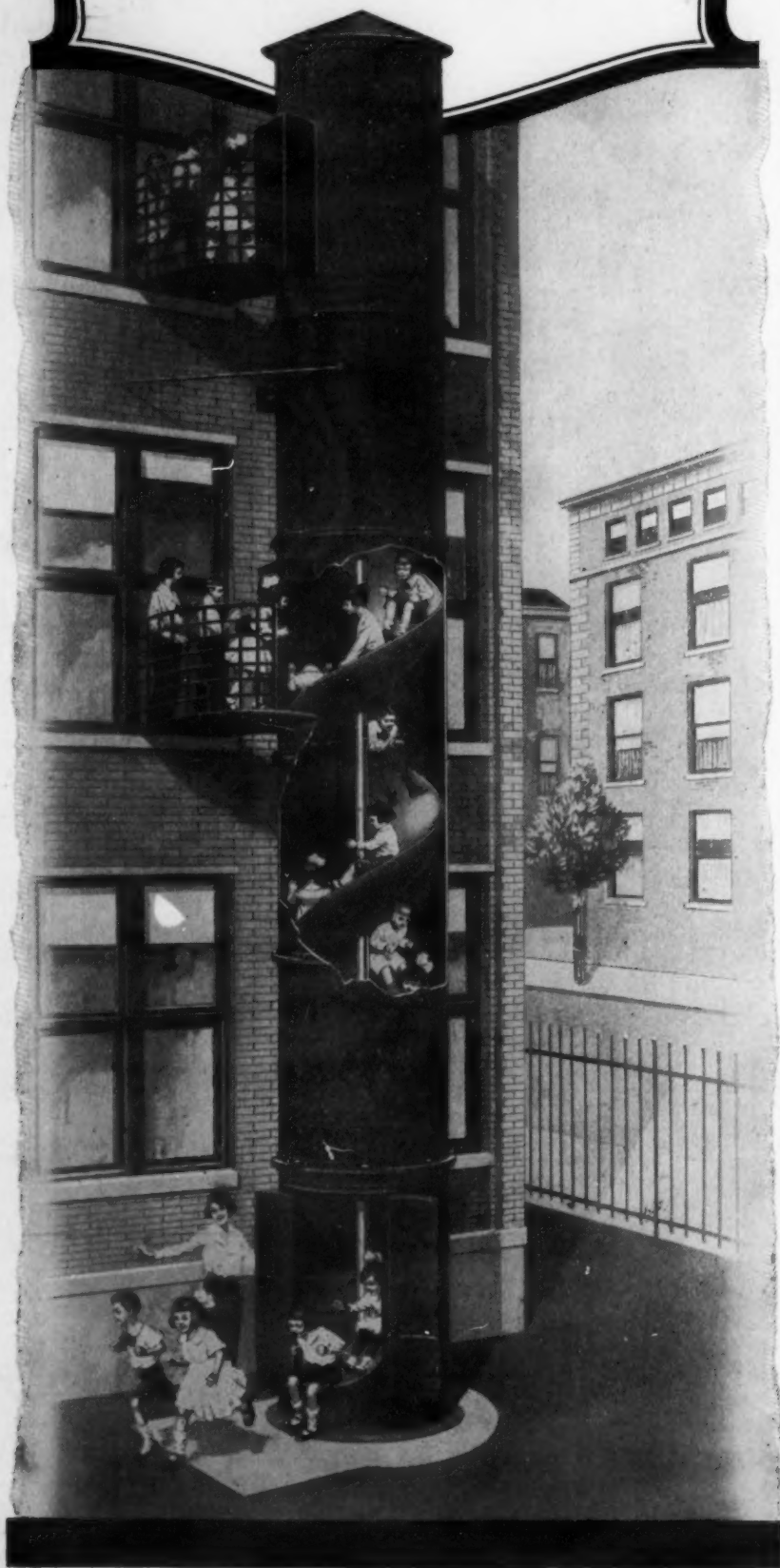
COMPLETE OUTFITTERS OF SCHOOL LUNCH ROOMS

DOW
LOUISVILLE

Because of Safety

The dangers of fire to lives cease to be dangers when the school building is equipped with Dow Spiral Slide Fire Escapes. The rapidity, the ease, the surety with which buildings can be emptied of their precious contents make them of inestimable value—because of safety. Millions have passed through them without a single mishap.

In laying out his plans for school buildings, the architect invariably prefers the Dow Spiral Slide Fire Escape. Dow has done much to obviate unsightly, hazardous exterior escapes. The Dow Spiral Slide may be incorporated within the walls of buildings without marring exterior effects and without loss of valuable floor space. Write Dow Wire and Iron Works, Incorporated, Louisville, Kentucky.



What is a Radiator Trap?

If you have anything to do with the choice of a heating system, you want to know the truth about radiator traps—for no steam heating system can be any more efficient than the traps used.

Many a heating system with a good boiler, ample radiating surfaces and other equipment is forever made inadequate by the shortcomings of the traps.

The DUNHAM
REG. TRADE-MARK
HEATING SERVICE

This Service is based on the Dunham Trap which is used on each radiator or on the steam coils from which the hot air is driven by the fans. The Dunham Trap automatically removes the trouble-making air and water which would otherwise stop the circulation of the steam. It keeps the radiating surface at nearly 100% efficiency.

May we send you complete details and a list of schools which have been Dunhamized?

C. A. DUNHAM COMPANY
Fisher Building, CHICAGO

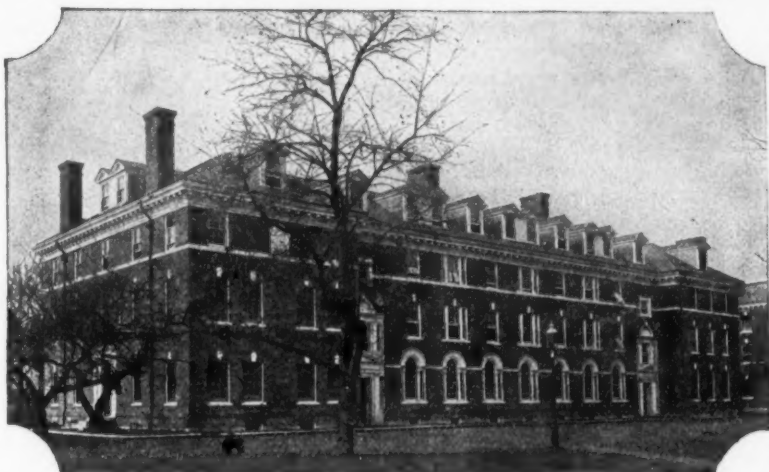
Factories: Marshalltown, Iowa 52 Branch and Local Sales Offices
Toronto, Canada in United States and Canada

London: 233A, Regent Street, W. 1.

Paris: Etablts. Munzing & Cie., 47 Rue de la Fontaine-au-Roi



MODULATION SYSTEM OF STEAM HEATING



Webster Hall, Phillips Academy, Exeter, N. H.;
Cram, Goodhue & Ferguson, Architects; Wal-
worth, English & Flett Co., Heating Contractors.

THE requirements to be satisfied by the heating system of buildings used for educational purposes are particularly severe. The equipment must maintain suitable warmth with generous ventilation, meet widely varying demands of classrooms, gymnasiums, dormitories, etc., permit quick adjustment, and be economical, especially where funds are limited.

The Webster Modulation System of Steam Heating has in thousands of installations thoroughly demonstrated its ability to meet all of these requirements. Its general use in educational buildings throughout the country indicates the entire satisfaction assured by its use, whether in the single room of a country school, the thirty or forty rooms in a large high school or the many buildings of a university.

The Webster organization, through its 31 Branch Offices and Service Stations, offers to architects, engineers and contractors the data and specialized knowledge accumulated during 32 years of experience.

This service, offered without charge or obligation, is of real value in planning a heating system to be exactly suitable to any given conditions and is only a single phase of the Webster policy of thorough co-operation. Write for further information.

Warren Webster
& Company



MAIN OFFICE AND WORKS
CAMDEN, N. J.

Branch Offices in All Principal Cities

BUILDING and FINANCE

—Minneapolis, Minn. Definite plans for laying the financial crisis of the public schools before the state legislature have been made in conferences between members of the school board legislative committee and the city attorney and members of the charter commission. It is the belief of Mr. C. E. Purdy, chairman of the school board legislative committee, that with legislative authorization of a bond issue for school matters achieved, the bonds will be taken up by local interests. It was recommended that a committee be appointed to place the special needs of the schools before the public. The board is believed to be against any curtailments and to be in favor of obtaining the \$370,000 estimated as the threatened deficit for the new year.

—Cleveland, O. The school board has taken steps to establish a construction organization and to build schools without the aid of outside contractors. The plan calls for a special board or committee, to have charge of the preparation of bids the same as if it were going to build the structure on which the bids are asked. This committee will furnish the board and the business director with complete information regarding the cost of new buildings. The committee is to have powers granted to it under which it will be possible to proceed with construction even tho the bids prove unsatisfactory.

—Lynchburg, Va. Immediate appropriations of \$370,000 for three additional buildings, and appropriations of \$438,000 in the near future for

buildings, repairs and acquisition of playground space have been requested of the city council by the local school board.

The recommendations of the board are based on the report of the survey of the needs of schools made by the New York Bureau of Municipal Research. The board in its analysis of the survey report, and on the basis of that survey, makes the following recommendations:

1. A new Rivermont building and equipment, to cost \$175,000.
2. A new colored high and grammar school, and equipment, to cost \$110,000.
3. A Miller Park Annex and equipment, to cost \$85,000.
4. Repairs, replacements and painting to cost \$15,000.
5. A playground at the White high school, to cost \$17,000.
6. A Junior High School to cost \$175,000.
7. A consolidation of two schools, at a cost of \$225,000.
8. A playground at the Wyatt building, to cost \$6,000.

—Kirkwood, Mo. A bond issue of \$225,000, with \$205,000 for a high school and \$20,000 for a colored school, has been carried at a special election of the voters.

—Dr. Arthur H. Wilde of the School of Education, of Boston University, has declared that the bill for tobacco in the United States is three times that of the bill for education; that the public spends twice as much on automobiles as on education, and one and one-third as much on candy. Dr. Wilde believes that if public opinion gave education more moral support, there would not be a great shortage of teachers. One-fifth of all the high school teachers of the country, said Dr. Wilde, left the profession last year. As there are only 9,000 trained teachers to take the places of the 17,000 leaving, it stands to reason that their places must be filled with teachers below standard.

—Syracuse, N. Y. Faced with a crying need for more junior high schools in the southern section of the city, Supt. Percy M. Hughes has urged the board of education to take steps for relieving the housing situation. With the suc-

cess of the junior high school experiment assured, parents have requested that their children be given the opportunities to be found in this school, and this requires that a second school be erected. The board has also been asked to take into consideration the crowded conditions of the Blodgett school and the demands of pupils in the Academic High School for vocational work.

—Harrisburg, Pa. Five one-room schools, one three-room, one two-room and one second-grade high school have been consolidated in Peters Township, Franklin County. The new school will contain 215 grade pupils and 43 high school students, and will be located on a tract of five acres. A donation of \$500 has been made for the construction of the new building.

—Minneapolis, Minn. The utilization of all school buildings as community centers thru boy scout activities is to be brought into play. The boy scouts will be permitted the use of the buildings in the face of additional costs to the school board.

—Oakland, Calif. The board of education has undertaken the construction of new schools to the value of \$450,000.

—Indianapolis, Ind. With the decision to postpone advertisement of bids and awarding of contracts on all permanent construction, the board has adopted a policy of economy in building activities. It is hoped that the board will be in position to take advantage of lower contract prices in March. If contracts are awarded at that time, it is expected that the work will be completed in time for the fall term.

—Fond du Lac, Wis. A further reduction of \$24,010 has been made in the school budget by the city authorities. The first reduction of \$63,000 was made by the school board at the time the budget was presented to the commission.

—The recent burning of schools, churches, stores, residences and mines in Pennsylvania has been traced to an organized red campaign of arson initiated by agents of the Russian soviet government. The incendiaries planned to strike terror in the hearts of the foreigners and force upon them the radical beliefs of the soviets. Nine schools housing between 1,500 and 2,000 pupils were destroyed.

DAHLSTROM METALLIC DOORS AND TRIM COMPLETE THE FIREPROOF BUILDING

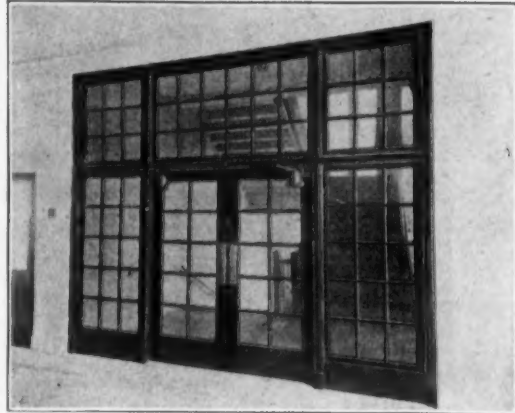


SHAKER HEIGHTS HIGH SCHOOL
CLEVELAND, OHIO

Hollow Metal Smoke Screens are more than the name implies. They will screen the corridors or stairway from smoke, yet they will permit the maximum of light to penetrate to these stairways. They will stop a fire should it get as far as the corridor and stairway junctions.

Hollow Metal Smoke Screens are sanitary. They are easy to keep clean. Vermin and mice will not nest in or near them, neither can they gnaw or eat their way thru them.

Upkeep costs are practically nothing as there is almost no depreciation to Hollow Metal Products.



COVENTRY SCHOOL
CLEVELAND, OHIO

The above illustrations show Dahlstrom Smoke Screens as installed in various Ohio Schools

DAHLSTROM METALLIC DOOR COMPANY

407 BUFFALO STREET

JAMESTOWN, NEW YORK

New York Office: 130 E. 15th Street

Chicago Office: 19 So. LaSalle Street

Representatives in All Principal Cities

—Tacoma, Wash. The voters of the city, at the annual school election, voted on the proposal to reorganize the existing school system upon the six-three-three plan. The plan provides for elementary schools of six grades; intermediate schools of three grades, and high school of three grades.

—Worcester, Mass. The chairman of the school committee has asked that the board take up the matter of additional school accommodations and the adoption of a definite building program for future needs. It is planned to build enough schools every year to take care of annual increases.

—Camden, N. J. The board has adopted a resolution calling for \$1,000,000 for the erection of two additional schools.

—Louisville, Ky. Plans of Archts. Nevin, Henry & Wischmeyer have been adopted for the new Tilghman high school.

—Cascade Tunnel District in the state of Washington claims to have the highest school. The district was organized in November and is 3,500 feet above sea level. The school is being conducted in a box car until a new building is erected in the spring.

—Leominster, Mass. Kenneth L. Morse, a member of the school board, supports the pay-as-you-go plan in school buying. Mr. Morse holds that a sufficient appropriation should be made each year so that all expenses for the year may be met. He holds that no bills should be held over for another year.

—The members of the school board of North Little Rock, Ark., recently appealed to the banks for a loan of \$50,000 to conduct the schools over a trying period. The board members were asked to secure notes with proper endorsement to cover the loan.

—Pottsville, Pa. The board has paid off more than \$30,000 in temporary loans and accrued interest.

—New York City, N. Y. Mayor Hylan has notified President Prall of the school board that the schools will not be hindered by the lack of an appropriation for school construction. The board has been assured that it will be given the \$46,000,000 needed this year to overcome part-time classes.

—Mr. J. H. Harris has resigned from the board of education of Cleveland, O., charging inefficiency in the business management of the public schools. The resignation was presented following a bitter discussion over a lamp contract.

—Richmond, Va. The city council has voted a bond issue of \$1,500,000 for new school sites and buildings to cover a three-year building program. Among the buildings to be erected are a junior high school for white students and a high school for colored students.

—Sedalia, Mo. Four two-room additions have been built for the grade schools and two additional rooms have been provided for the high school. The superintendent's office in the latter building has been removed to the Public Library where excellent quarters have been secured.

—East Chicago, Ind. The board is carrying out a building program which is intended to adequately house the rapidly growing school population. The first section of the Junior-Senior High School was occupied in 1919, and the second half is now nearing completion. A one-story industrial building was completed in September last and plans have been made for an auditorium and gymnasium. When complete this structure will occupy an entire block and will offer all kinds of work from the kindergarten to the first year of college inclusive.

On the west side of the city, a Junior High School will be erected. This building will be developed into a Junior-Senior School as the school population grows.

Because of a lack of building accommodations, industrial work up to the present has been confined to the usual manual training courses. A new building has been fully equipped for vocational work, with day, evening and part-time classes.

—Architect C. B. J. Snyder, of the board of education of New York City, has recently completed plans for an addition to the Curtis High School. The addition will be four stories high and will provide three additional departments, namely, manual training, domestic science and domestic arts. Curtis High School owes its origin to the union of high school classes in three elementary schools. It was built in 1902

and was occupied in 1904. It is planned eventually to increase the size and the enrollment of the school making it a typically cosmopolitan high school of about 2,200 students.

—Controller Craig of the New York City Board of Estimate recently appeared before the Supreme Court in answer to mandamus proceedings brought against him by the board of education to compel him to make payments of about \$87,000,000 including \$204,000 due the teachers as absence refunds for 1918. Mr. Craig charged that the board sought to build up a great excess fund and that it had seized upon the necessities of the claimants to obtain an adjudication establishing its right to such funds. He contended that unexpended balances should revert to the city to reduce taxes.

The assistant corporation counsel pointed to the ruling of the Court of Appeals that the only relation which the city has to the education department is that of custodian and depository of the funds. It is contended that unencumbered school money remaining in the treasury may be designated by the board of estimate in making further appropriations for educational purposes, and at the request of the board of education for meeting emergencies. The chief justice of the Court has reserved his decision for a later date.

—Worcester, Mass. The adoption of an extensive building program extending over a period of years, and the preparation of plans for thirty new schools have been recommended to the board by Mr. Walter J. Cookson, a member of the body. The board has presented its recommendations for a building program to the city council and the construction of three new buildings and additions to two structures have been recommended.

—The distribution of money raised for school purposes so as to insure equal opportunities for education in the country as well as in the city, is the most important problem confronting the state of Washington, according to Dr. Elwood P. Cubberley, who assisted the state commission in the survey of the educational system.

Dr. Cubberley recommends that the state make an equal assessment on all property for school

(Concluded on Page 85)



How safe is safe enough ?

WHEN it comes home to you—to your school—your child and *fire*—How Safe is Safe Enough?

As safe as possible!

Any other answer is ridiculous—sometimes it is criminal!

“As Safe as Possible” means a Grinnell Automatic Sprinkler System in the school where your child goes. Anything else—any substitute—may later be regretted over the biers of little children.

With a Grinnell Automatic Sprinkler System any school can be made safe for children.

This system is the highest type of fire-fighting device ever devised. It is automatic! The heat of the fire works it. It is always on guard. Always ready. No human aid is required. When the Fire Starts the Water Starts!

Laws require such protection for factory workers. Are school children less worthy of your protection? You can't say “No” and be an American father or mother.

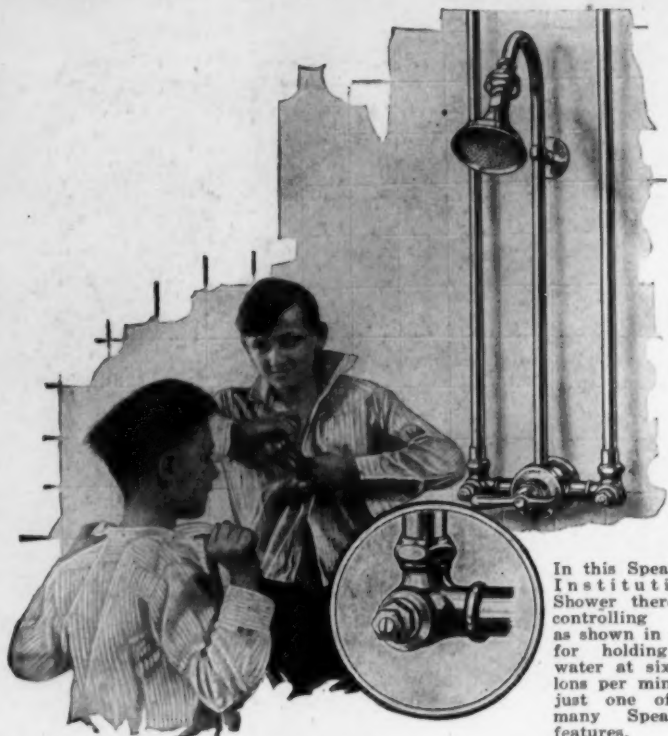
Read “*Fire Tragedies and Their Remedy*”

Send us a postal card for “Fire Tragedies and Their Remedy.” Every mother and father needs it to convince school authorities that as safe as possible is what the public proposes to have for its children. Write us now, before you put aside this magazine. Address Grinnell Company, Inc., 291 West Exchange Street, Providence, R. I.

GRINNELL  **COMPANY**
EXECUTIVE OFFICES PROVIDENCE, R. I.

Complete Engineering and Construction Service on Automatic Sprinklers.
Industrial Piping, Heating and Power Equipments. Fittings, Pipe, Valves.

GRINNELL AUTOMATIC SPRINKLER SYSTEM—When the fire starts, the water starts



"Now for the Shower—Quick!"

In this Speakman Institutional Shower there are controlling stops as shown in circle for holding the water at six gallons per minute—just one of the many Speakman features.

Buy Showers by the Year

When you buy a shower measure its cost by the year's service it will give—in water economy—in absence of upkeep and repair costs—in greater convenience and bathing pleasure.

Take water economy. The Speakman Kas-Bras Head—a part of practically all Speakman Showers—is drilled so that all the fine cleansing spray is thrown on the bather—not around him or wasted on the curtain. And six gallons per minute are plenty and two minutes enough for a refreshing, invigorating shower—twelve gallons of clean, fresh water.

Of course the Kas-Bras head will shower perfectly for the fellow who "likes it on full."

The Speakman Mixometer is another factor in determining the shower's yearly cost. It gives the desired shower temperature instantly—no wasted water.

And then there is the yearly cost of repairs. In Speakman Showers, due to care in making, assembling and testing, this is negligible—usually nothing.

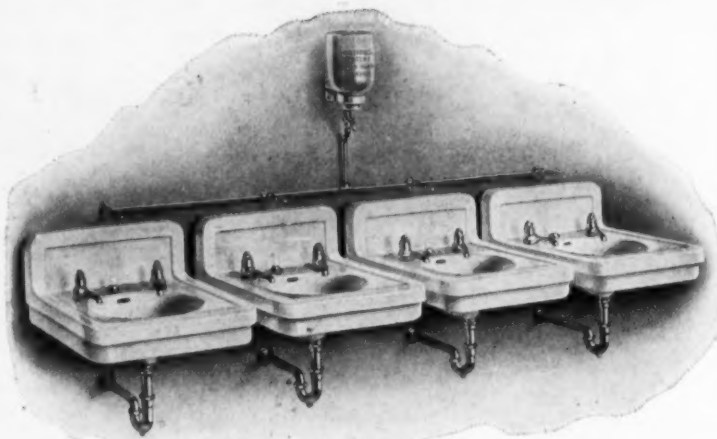
The entire Speakman organization is at the service of any institution interested in showers.

Your plumber or dealer will give you a Speakman Shower folder. If he is out of them, write us.

SPEAKMAN COMPANY
Wilmington Delaware

SPEAKMAN SHOWERS

Wash and Bathe in Running Water



Sanitate the Soap Supply of Your School Wash Rooms

You can't be too insistent on complete cleanliness and sanitation in the school wash rooms. To banish all possibility of infection from soap, install the

Watrous Single-Container Liquid Soap System (Gravity Feed)

One container supplies any number of bowls. More convenient to replenish and more economical in installation and use than individual containers.

Watrous scientific plumbing fixtures include Flushing Valves, Urinals, Self-Closing Cocks, Drinking Fountains, Duojet Closets.

Write for illustrated catalog.

The Imperial Brass Mfg. Co.
1209 W. HARRISON ST. CHICAGO, ILL.

USE 20th CENTURY Drinking Fountains

Strictly Sanitary Durably Constructed



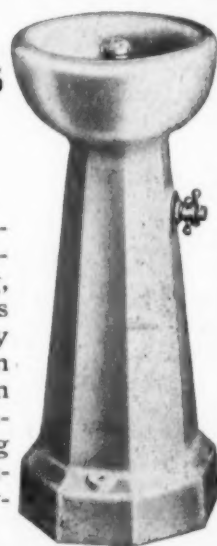
"20th Century" bubbler heads are made with single hole as shown above, or with five holes as shown below, and with removable white porcelain or German silver top, easily adjusted.

The "20th Century" bubbling fountain always provides a clean, refreshing, healthful drink and prevents the spread of diseases. They are a positive necessity in every school. Twenty-seven states and most cities prohibit the use of the drinking cup, because they are unsanitary and positively dangerous.

We can furnish practically any style of bubbler you might need; the largest line on the American market.

We can fill your orders at once and every "20th Century" is guaranteed against defective workmanship or material.

Send for our catalog and lowest prices.



Send for our new catalog, so you will have it handy when you are ready to order.



TWENTIETH CENTURY BRASS WORKS
BELLEVILLE, ILL.

Eliminate Contamination

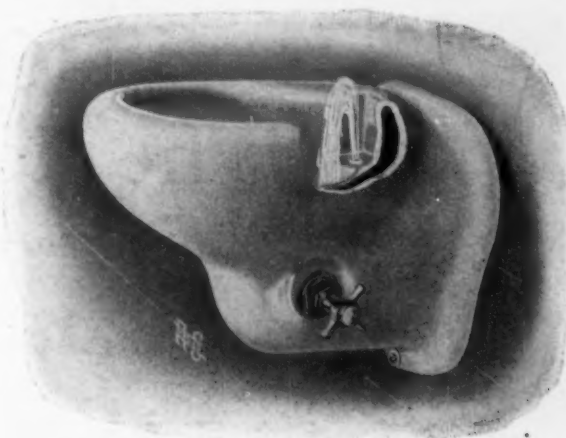
Prevent Tampering, Pilfering and Squirting. Equip your schools with the sanitary, health promoting

RUNDLE-SPENCE "VERTICO-SLANT" DRINKING FOUNTAINS

Their use absolutely prevents tampering and pilfering and discourages squirting, the cause of finger contamination, as it is impossible to do so without wetting the operator more than the other fellow.



No. C-143



No. C-92

Rundle-Spence "Vertico-Slant" Drinking Fountains have no hoods on which the corner of the mouth can rest; no filth collecting crevices that are impossible to clean, as the bowls are of extra heavy vitreous china, and of free and open construction.

Rundle-Spence "Vertico-Slant" Drinking Fountains are made in a variety of designs to meet every requirement.

Our new 73-page catalogue, illustrating expensive and inexpensive "Vertico-Slant" Drinking Fountains in detail, will gladly be sent you on request.

Rundle-Spence Mfg. Company

52 Second Street

Milwaukee, Wisconsin



(Concluded from Page 82)

purposes and that distribution be made on the basis of attendance. At present the rich districts are able to raise large sums for school purposes at a low tax levy, and other districts have a high levy and are not able to raise as much per child.

—Cleveland, O. Director F. G. Hogen has recommended that the board adopt one of two policies in school building. He asks that quantity surveys be made of each building project, or that expert engineers be employed to advise with school architects on drawings and costs of buildings.

—Sioux Falls, S. D. The board has sold the remainder of its \$500,000 bond issue to a Chicago firm. It is planned to erect the first unit of a new high school during the coming year. The building will accommodate 1,500 students and will cost \$400,000. Perkins & McWayne, Sioux Falls, are the architects.

—Memphis, Tenn. The board of education has disposed of the second half of the \$500,000 bonds authorized by the legislature. The money will be used to cover the excess in the cost of school annexes and to make possible further additions to other buildings.

—Royalties on iron ore in Minnesota totaled \$1,290,108 this year, most of which will go to the public schools and the state university. It is estimated that state-owned mines in northern Minnesota have thus far produced 5,160,000 tons of ore. The state owns about thirty producing mines and gets 25 cents a ton for ore produced.

—Atlanta, Ga. A detailed inspection of the school buildings has been made by Mayor Key. It is definitely understood that a one-half cent emergency tax will be levied, and that the greater part of the \$1,300,000 realized will be devoted to the erection of new buildings.

—Minneapolis, Minn. A drastic revision of the school board building program, including the abandonment of new projects beyond the erection of the two high schools and the construction of one hundred portables, are predicted by the school authorities. The change is the result of complications which have arisen

over the bond sale limit and which indicates that the city has reached the point where it cannot sell additional bonds.

—Louisville, Ky. The board has asked the city authorities for an increase of \$596,651 over that of last year, for absolutely necessary repairs and additions to buildings, and for increased salaries.

—A state distribution fund of \$10,000,000 is proposed for the state of Illinois by Supt. F. G. Blair. The amount which was fixed two years ago, was reduced to \$6,000,000 by agreement.

—The state of Washington during 1920 paid out more than \$20,000,000 in total expenditures for schools in the state. Of this amount, \$11,831,432 were paid out in teachers' salaries.

—The census increase in school children in the last ten years is reported at 35.2, the enrollment increase at 34.5 per cent, and the increase in attendance at 36.1.

—In the eleven years covered by the report, the expenditures for all purposes have increased 88.1 and the amount for teachers' salaries has increased 131.3 per cent. The figures are contained in the annual report of State Supt. Josephine C. Preston.

—The school board of Springfield, Mass., is receiving tentative designs for the new junior high school to be erected at a cost of about \$800,000. In the plans, an effort has been made to secure economy in construction and to provide a maximum of fresh air and sunlight in every room.

—Madison, Wis. The public school system faces a most urgent emergency, in the opinion of Supt. C. S. Meek, because of insufficient housing facilities. The members of the board are at work formulating a building program to overcome the lack of accommodations.

—Chicago, Ill. Resolutions asking a decrease in the building fund appropriation for 1920 of approximately \$1,500,000 have been presented to the board of education. The board is in position to decrease the building fund from the fact that \$1,500,000 remains from the appropriation of 1919.

—The Boston Safe Deposit and Trust Company, and Edward Benson, as trustee for the Beacon Hill Trust, have conveyed to the city

of Boston a ten-story office building, which is to be the school headquarters. The board has occupied its present offices in Mason Street for a half century.

—Dawson Springs, Ky., was one of the Kentucky towns hit by a court decision to the effect that cities below the fourth class may not collect the maximum school tax of \$1.25 provided for the grade school districts. The town had levied its tax and made its plans accordingly.

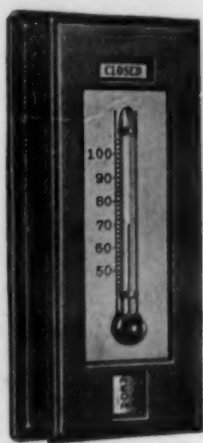
To meet the situation, the citizens held a mass meeting and nearly everyone agreed to pay the full tax as planned. Under the law they can only collect a maximum of 75 cents, so this means an additional contribution of fifty cents. The adjustment of the matter permits the schools to continue.

—Lexington, Ky. Buildings, subscriptions and land valued at approximately \$17,000 have been offered the Kentucky Daughters of the American Revolution by the citizens of Hueysville for a proposed mountain school.

—President Prall of the board of education of New York City has notified Mayor Hylan that the school budget for 1921 cannot be reduced by the \$2,000,000 proposed in the recent budget conference, and that \$77,269,938 will be required for next year. By a reorganization of the continuation school program, the board estimates it can save \$676,100.

—Washington, D. C. Supplementary estimates for new school buildings recently sent to the Senate Subcommittee on appropriations by the district commissioners, will provide approximately 128 of the 183 additional classrooms needed to relieve overcrowded conditions. The school board in its additional building budget, had planned for approximately \$3,500,000 for the proposed building program but subsequently reduced this amount by \$1,000,000 when they presented their estimates to the commissioners.

—One of the first recommendations for the improvement of the administration of the public-school system of Elizabeth, N. J., made by the survey experts was a substantial reduction in the size of the present school board.



JOHNSON— The Accepted Standard

School architecture like all forms of building construction has now accepted standards. Sizes of classrooms are standard. Fireproof construction is being standardized. Temperature regulation was standardized years ago by Johnson.

After 38 years of experience we have perfected the



Johnson (Heat Humidity) Control

and the satisfactory operation of thousands of school plants tells its own story of our progress. We are not overstating our case when we assert that Johnson is the accepted standard in temperature regulation.

The Model Metal Diaphragm Thermostat and the "Sylphon" Metal Bellows Diaphragm Valve make the long-looked-for and only ALL-METAL SYSTEM.

It costs more, but it is the best.

The Johnson Service Company
MILWAUKEE, WISCONSIN

THE OLDEST—THE LARGEST—AND ALWAYS THE MOST PROGRESSIVE



The Elizabeth board as now constituted is composed of nineteen members. The unwieldiness of this number is apparent to everyone and it has existed for years only because one person in the town discovered he could manipulate a large disinterested body of trustees better than he could a smaller and more active number.

According to the survey experts, a board of five members is large enough for a city the size of Elizabeth. In a board of this size, the consent of three is necessary to do business and is reasonably safe. With no more than seven, business can be transacted with reasonable dispatch.

—Indianapolis, Ind. The school board has adopted rules intended to diminish fire hazards in the schools. It has been shown that violations of the city ordinances have been permitted in some of the schools, and that carelessness in the handling of rubbish and inflammable material has been prevalent.

A fire inspector's report on one of the schools suggested that steps be taken to eliminate rubbish from under stairways and from basements, that fire extinguishers be placed in the building, that steam pipes near woodwork be insulated, that signs be placed directing persons to exits on fire escapes, and that locks on doors be changed to open from the inside. It was also suggested that windows used as exits to fire escapes, be replaced with doors because the windows are too heavy for children to raise. It was pointed out that fire extinguishers have been placed in only a few schools.

A committee composed of Mr. Bert S. Gadd, commissioner, Mr. L. A. Snider, building advisor, and Mr. C. W. Burton, superintendent of buildings, was appointed to cooperate with the fire inspector and to recommend changes to be made.

ADOPT NEW RULES.

The school board of San Diego, Calif., has adopted new rules to govern the organization and administration of the school system, the duties of principals, teachers, supervisors and janitors, and the rights and responsibilities of the pupils. The rules are divided into sections

under which are discussed budget and finance; building; instruction; supplies; general duties of the board; duties of the executive officer; administration of the business department; powers of the principal; duties of supervisors; appointment and tenure of teachers; duties and responsibilities of teachers and substitutes; duties and responsibilities and rights of pupils; duties, responsibilities and conduct of janitors; and the use of buildings, rooms and special equipment.

Under Superintendent, the rules provide for the following:

The Superintendent of Schools shall be the executive officer of the board of education and under its direction he shall attend all meetings of the board and be granted the privilege of taking part in its deliberations.

1. He shall establish and change the school boundaries.

2. He alone shall be directly responsible to the board of education for the efficient operation of all school functions of the board of education.

3. He shall have the power to nominate and to assign, transfer, promote and demote or suspend all supervisors, principals, teachers and other employees of the board of education as hereinafter provided. All nominations, promotions, demotions, suspensions, assignments and transfers of employees of the board of education which shall be made by the Superintendent shall be reported in writing to the board at its next regular meeting, and shall stand confirmed unless disapproved by a majority vote of the board. He shall have immediate control of all supervisors, principals and teachers. All directions and suggestions to them with reference to the performance of their respective duties shall come thru him.

Under Supervisors are included the following:

1. Special teachers shall, at the request of the Superintendent, meet the teachers of the system for the purpose of giving them instructions in the branches over which such special teachers may have charge.

2. They shall file a program of their work in the office of the Superintendent and visit

regularly and impartially the several schools in which they are required to give supervision or instruction, and they shall make written reports of the progress of their work to the Superintendent or Principal as directed by the Superintendent.

They shall be at the board rooms each Tuesday from 3:30 to 4:30 p. m. to give teachers an opportunity to consult with them regarding their special work.

3. The regular teacher of any room shall be present in the room during the visit of the Supervisor and give full direction to the work directed by the Supervisor.

4. It shall be the duty of the regular teachers to make themselves proficient, practically as well as theoretically, in such special branches as are taught in the schools.

ADMINISTRATION.

—Richmond, Va. Two accelerated classes are in operation in the elementary schools. Additional classes will be established as the demand arises.

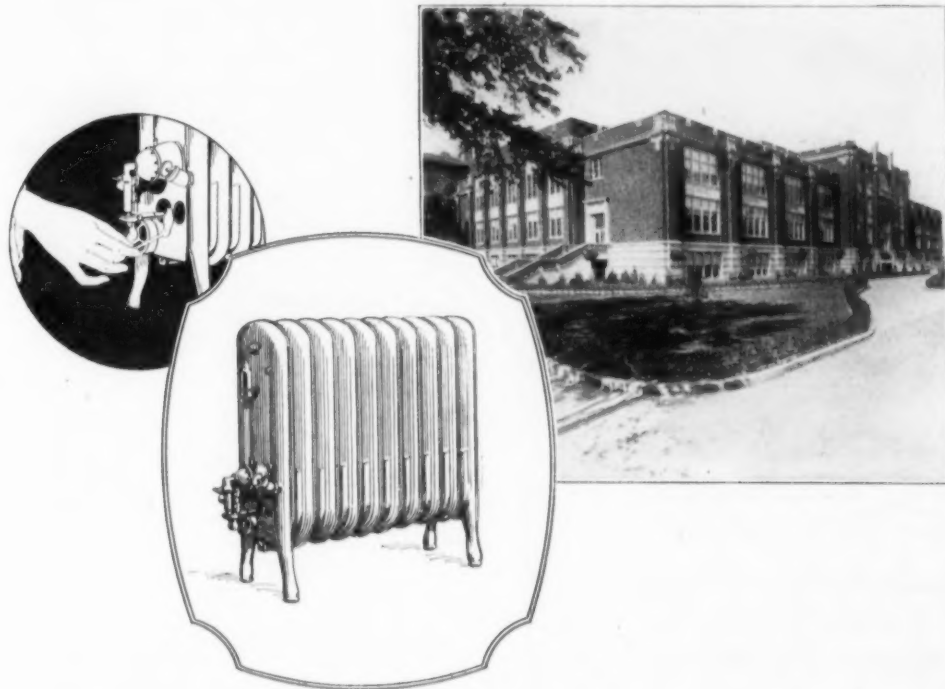
—A school savings system established three years ago, has become a popular feature of the schools. More than 10,000 pupils are depositors each week and the average weekly deposit for the city reaches \$3,500.

—An opportunity class for upper-grade grammar boys has been established at Colorado Springs, Colo. Mr. Bert Confare is in charge of the class.

—The year 1921 will be Centennial Year for Missouri, and the celebration of her admission into the Union. Preparations have been made for its proper observance thru the schools, and all lines of industry will be represented at a large exhibit to be held at the State Fair, at Sedalia, in August next.

—Public School 7, New York City, one of Manhattan's two continuation schools, has been adopted as a model for Japan and is now well known thruout the Flowery Kingdom. The school was very much admired by an official Japanese educational mission which visited New York in 1918, and they apparently took the message of the school back with them to Japan.

CLOW



Steam Heat Without Coal

STEAM is admittedly the best all-around method of heating. But with coal for fuel, it is dirty, expensive and undependable.

GASTEAM heating retains all the advantages of the best steam systems, with the economy, reliability and cleanliness of gas fuel. And it does away with boiler and piping.

School buildings are particularly adapted to GASTEAM heating. Schoolrooms can be made healthful and attractive and kept so, because there is no smoke or soot.

A GASTEAM system is made up of a number of radiators—each one a steam heating plant in itself, thermostatically controlled. A GASTEAM system can be quickly installed in any type of building—old or new.

Let us send you the GASTEAM book and the names of some schools equipped with a GASTEAM system.

It saves labor. No attention is required. Once lighted, the radiators maintain a uniform temperature **automatically**. And the atmosphere has just the right degree of humidity.

Burning only **when** and **where** heat is needed, there is no waste. No money is tied up in a coal pile, because **gas** is paid for as used.

Profitable use can be made of the hitherto wasted basement, because with a GASTEAM system there is no furnace or coal bin.

James B. Clow & Sons

534-546 S. Franklin Street, Chicago, Ill.

Sales Offices:

| | | |
|--------------|---------------|------------|
| New York | St. Louis | Pittsburgh |
| Minneapolis | Detroit | Milwaukee |
| Philadelphia | San Francisco | |





Model E, electrically operated Telescopic G&G Hoist in use at Hotel Grand, New York. Telescopes below grade when not in use. Sidewalk Doors with Spring Guard Gates open and lock—close and lock—automatically.

This G&G Telescopic Hoist Raises 3500 Cans of Ashes in One Continuous Operation!

THAT'S the record made by a G&G, electrically operated, Telescopic Hoist at Hotel Grand, 31st and Broadway, New York, last winter. In spite of the fact that the boiler room is unusually deep at this installation—21 feet, 10 inches below grade—the 3500 cans of ashes (an accumulation after a severe snow-storm) were *speedily and economically removed in one continuous operation*. This job, while a large one, was "all in the day's work" for the G&G Hoist which has been rendering the very best of service since its installation.

G&G Hoists are particularly suited for the removal of ashes and rubbish at schools because they enable one or two men to *quickly and quietly* do the work ordinarily requiring as many as six men. In fact, a G&G Hoist will soon pay for itself in money saved in labor hire for this necessary work. G&G Hoists are simple, safe and dependable in operation. Can be operated during the coldest weather as no parts are susceptible to freezing.

Investigate this labor-saving G&G Hoist. Write, TODAY, for our pamphlet "Which Model Shall I Use?"

GILLIS & GEOGHEGAN

551 West Broadway, New York

Makers of



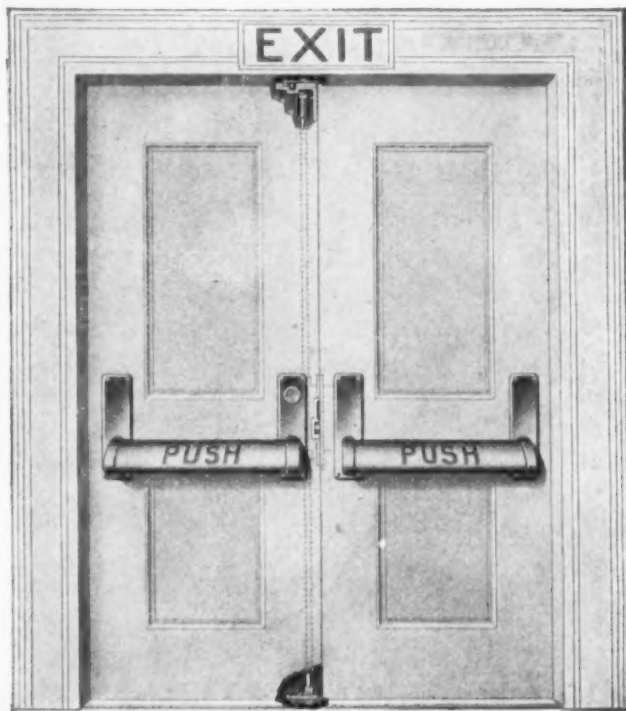
Telescopic Hoist

With Automatic Stop and Gravity Lowering Device

"Reg. U. S. Pat. Off."

Quick exit assured Safety provided

Members of school boards and other officials on whom the responsibility rests should make full provision for protection to life in case of panic by the use of this safety device.



SARGENT

Reg. U. S. Pat. Off.

Fire Exit Door Bolts

as illustrated above, are attractive in appearance, strong in construction and quick in action. The construction is such that in operating the push bar the hands or arms cannot be caught between the bar and the door.

They have a wide push bar which projects only $2\frac{1}{2}$ inches from the surface of the door, permitting the door to swing wide open so as not to obstruct passage through the doorway. Slight pressure on the bar at any point will release the bolts instantly. All edges and corners on the bars and brackets are carefully rounded, eliminating all possibility of wearing apparel becoming accidentally caught.

Sargent Fire Exit Door Bolts, Locks and Hardware are sold by representative dealers in all cities.

SARGENT & COMPANY, Manufacturers

New Haven, Conn.

New York

Chicago



Mr. Jones, Chairman of the School Board, indulges in a little thinking and visualizing of what would happen if the city school, equipped with old fashioned, ladder-type fire escapes, should take fire—and of the greater opportunity for escape afforded by Standard Spiral Fire Escapes.

FIRE moves with the rapidity of lightning, almost instantly spreading its deadly presence throughout the school building, and leaving destruction and death in its path. Time is reckoned in seconds at such critical moments, and life hangs by a very slender thread.

Picture in your mind a typical school house equipped with the old type fire escape. When fire menaces, what chance have the panic-stricken children to escape?

A STANDARD GRAVITY SPIRAL FIRE ESCAPE under actual test, lowered two hundred children in a minute's time. The smallest and weakest child has the same opportunity of escaping from the burning building as its strong and robust playmate. They simply slide to safety.

Send us the floor heights of your school building and we will send you promptly an estimate of cost of a Standard Spiral Fire Escape. Act promptly—**TODAY.**

Standard Conveyor Company

NORTH ST. PAUL, MINN.

CHICAGO

Milwaukee

Cincinnati

NEW YORK

549 W. Washington St.

Cleveland

227 Fulton St.

Representatives in all principal cities.



—Lincolnton, N. C. To create a better sentiment for the public schools, and to make the public acquainted with school needs, the board of education has outlined an extensive educational program. The following have been designated as immediate needs:

- An ungraded room for the backward pupils.
- A summer school for delinquent pupils.
- Night schools for employes and illiterates.
- Medical inspection.
- Ample playground space.
- Compulsory school attendance.
- A kindergarten.
- A gymnasium.
- A nurse, health clinic and physical director.
- An auditorium for community as well as school use.

—The superintendents of Vermont are urging more accurate records of the children of the state, stricter enforcement of truancy laws, the formulation of a professional code and the standardization of school buildings.

—The late Dr. William H. Maxwell, former Superintendent of the Greater New York schools, left an estate valued at \$75,257. A son and a daughter became the beneficiaries.

—The complete scrapping of all the compulsory education laws of the state and the substitution of a simple law making it mandatory that all children attend school at the age of six and remain until their elementary studies are completed has been urged by Dr. Thomas E. Finegan, state superintendent of public instruction of Pennsylvania.

—The high school board of Oak Park, Ill., is considering a plan to insure its teachers against all disease and accident by the "group method." Most of the teachers are willing to accept the insurance as a protection. The board is to pay for the premiums.

—State Supt. L. N. Hines of Indiana is co-operating with educators, in working out a program to submit to the legislature for the correction of a bad situation in rural education.

The purpose of Mr. Hines as stated by himself, is to give all the children of all the people, in all the townships and cities, equal educational opportunities. It is pointed out that Indiana has not approached an ideal regarding schools and that the real trouble is that the Indiana plan has never had a fair chance. A number of facts and figures bearing out this version of the situation were presented.

The problem in Lake county is the remedy of present unsatisfactory conditions. Some of the schoolhouses are said to be unfit for human habitation. They have no outbuildings, no drinking water, and no sidewalks. The buildings are in a bad state of repair and the instruction is not up to the standard.

The educators present at the conference approved a recommendation that a committee be named to take up the problem with the state education authorities and to prepare a bill for presentation in the state legislature.

—The Board of Regents of New York State has appointed a committee to nominate a successor to Dr. John H. Finley, who resigned in November to go into newspaper work. Dr. Frank P. Gilbert, Deputy State Commissioner, is being considered. About thirty candidates are on the list of nominees.

—Superintendent J. H. Beveridge of Omaha was made the President of the Nebraska State Teachers Association by a larger vote than was ever cast for any one officer of that body.

—As a means of bringing the community and the schools closer together and of giving parents and citizens generally an opportunity to understand the type of work done in the grades, an inter-grade contest was held at Vermillion, S. D., during the month of December. Contests

were held in the respective grade schools and closed with final contests in the city theater. Prominent citizens and teachers acted as judges and the community generally was invited to attend. The contests included reading, drawing, spelling, folk dancing, and music. The contests proper were interspersed with a musical entertainment. The work was in charge of Superintendent J. S. Bjornson.

—Indianapolis, Ind. Supt. E. U. Graff recently presented a report to the board of education, in which he discussed the subject of school enumeration and its relation to the school census and recording department. The report showed how inefficient the former system of enumeration had been, and how a slight increase in expense would make the system one hundred per cent efficient. It appears that a checking up of pupils in September last, revealed that more than 12,000 children were in classes who had not been enrolled in the previous spring. The greater portion of these children had been missed under the former enumeration system.

—Elimination of first-term kindergarten classes, and the discontinuance of the services of twelve teachers at Minneapolis, Minn., have become necessary because of financial reasons. It is estimated a saving of \$7,000 will be possible between now and next June.

—Indianapolis, Ind. Dancing has been prohibited at the Shortridge High School by order of the school authorities. The order became necessary because of the prevailing ultra-modern dances and will continue in effect until the more dignified steps of former years return.

—Hammond, Ind. Six suits on promissory notes have been filed in the Lake County Superior Court by local banks to collect money borrowed by the school board. A total of \$109,500 have been borrowed in the last two years and the judgments range from \$5,000 to \$29,000.

—Dell Rapids, S. D. The board has adopted a policy not to permit dancing in the school auditorium.

—Yakima, Wash. Taking the position that dancing should be under proper supervision, the school board has allowed dancing parties to con-

Palmer's MULTI-SERVICE PRODUCTS

"Their Use Mean Cleaner Schools"

Palmer's Multi-Service Floor Brushes

The extreme durability of Palmer's Multi-Service Floor Brushes, furnished with improved Reversible Rigid and Spring Handles, make these brushes the most practical and economical for general cleaning purposes.



The Reversible Handle is an exclusive feature of Palmer's Multi-Service Floor Brushes. It permits the handle to be adjusted lengthwise, enabling one to sweep in corners and narrow places, insuring maximum amount of wear and service out of every brush.

The improved Spring Handle consists of a casting, con-

structed similar to that of the rigid handle, except that a spring is provided between the casting and the wood handle. The spring insures the brush being placed flat on the floor, which prevents back tracking and prolongs the life of the brush. At the finish of each stroke the power of the spring frees all clinging particles from the bristles.



Descriptive circular and prices on request.

PALMER'S MULTI-SERVICE PRODUCTS

SCOURING POWDERS
SOAP POWDERS
LIQUID SOAPS

BRUSHES
DUST PANS
SANITARY DUSTERS
DISINFECTANTS—ALL KINDS

ERASERS
INKS
INK CRYSTALS

SANITARY SCRUBBING SOAP

SOAP DISPENSERS
PAPER TOWEL FIXTURES
TOILET PAPER FIXTURES

Order Palmer's Multi-Service Products from your Nearest Dealer.

If he cannot supply you write us direct and we will take care of your needs.

PALMER CO. MILWAUKEE, U.S.A.
NOT INCORPORATED
MANUFACTURERS FOR THE JOBBER.

tinue in the school gymnasium. Adequate safeguards have been provided in the direction of limitations on the number of parties, and suitable chaperons.

—Bellevue, O. Supt. C. M. Carrick has just compiled statistics showing the age-grade distribution of pupils in the public schools. A total of 148 were found to be retarded one year, 56 two years, 24 three years, and seven four years. Of those retarded one year, 36 were boys and 62 were girls. Of those retarded four years, seven were boys. A total of 208 boys and 135 girls were retarded.

—Moorhead, Minn. The Moorhead State Normal School is cooperating with junior and senior high schools in giving the army mental tests. The school distributes at cost to them the examination booklets used in the examination, a manual of directions, and scoring keys and stencils.

—A bill embodying the several suggestions contained in the report of the General Education Board has been presented to the state legislature of North Carolina. Among the fundamental changes proposed in the bill are the following:

1. Popular election of county school boards.
2. Constitutional amendment to permit the appointment of the superintendent of education instead of having him elected as under the present system.
3. Abolition of the special tax district system, and substitution therefor of a county wide tax system.

The bill embodies other features and changes in the general administration of the state school system but they are not as important as those mentioned. They comprise changes looking toward the elimination of the one-room rural schools, the establishment of consolidated schools, and provision for higher teachers' salaries.

—Westfield, Mass. Acting upon the suggestions of parents, the school board has prohibited excessive and formal dress at the annual junior-senior reception.

—Bluffton, Ind. The board has denied the use of the school gymnasium for dancing.

—Radical departures from the present system of school administration and organization in the state of Washington have been recommended in the report of the governor's commission appointed to investigate the school situation. The committee which is headed by Senator W. J. Hutton, of Cheney, has made the following suggestions:

A state board of education of seven members to be appointed by the governor and to possess legislative and judicial powers in educational matters.

A state superintendent of public instruction to be appointed by the board without restriction regarding place of residence or political affiliation.

A state department of education with enlarged powers to completely cover the field of educational effort in the state.

County and district school administration to be reorganized to provide that (a) each county outside of districts containing cities of over 1,500 population shall be constituted as first class school districts with the option of becoming a part of organizations to be "county" school districts, to be formed in sections of lesser population; (b) formation in each county of a county board of education of five members with power to appoint a county superintendent of schools who shall also be superintendent of county school district; (c) that all present school districts which do not contain cities of over 1,500 population shall be subdivided with one elected trustee; that as far as possible there shall be uniformity in the matter of elections, taxation, distribution of funds, the powers of boards and superintendents, the selection of teachers and business management for first class districts and for county school districts.

The commission also recommends that (a) a larger per cent of the cost of common school education be raised by a state-wide tax; (b) that the state school funds and the county school funds be apportioned one-third on the basis of teachers and two-thirds on the basis of attend-

ance, the attendance of pupils in high schools to be counted as one and one-half times the actual attendance; (c) that all the school districts in each county except those in cities over 1,500 population, be administered as one county school district and that the funds for the operation of the schools in this county school district be levied equally upon all the property within the district; (d) that school districts be allowed to levy up to 15 mills of the assessed valuation of property within the district for current expense, instead of 10 mills as now authorized.

The commission states that in the formation of new school legislation it is intended to provide a minimum school term, parental schools, building requirements, health education, and other matters of school administration.

—Cle Elum, Wash. Primary and intermediate departments and a junior and senior high school have been established under a new reorganization of the school system. The junior high school which is growing rapidly, will soon be in need of new quarters.

Philadelphia, Pa. The depression in industry has caused a reduction in child labor and a consequent rush of children back to the schools. The school authorities established six new classes in January to take care of eight hundred boys and girls from 14 to 16 years who held working permits. It is estimated that about 1,200 children will be turned back to the schools in this manner.

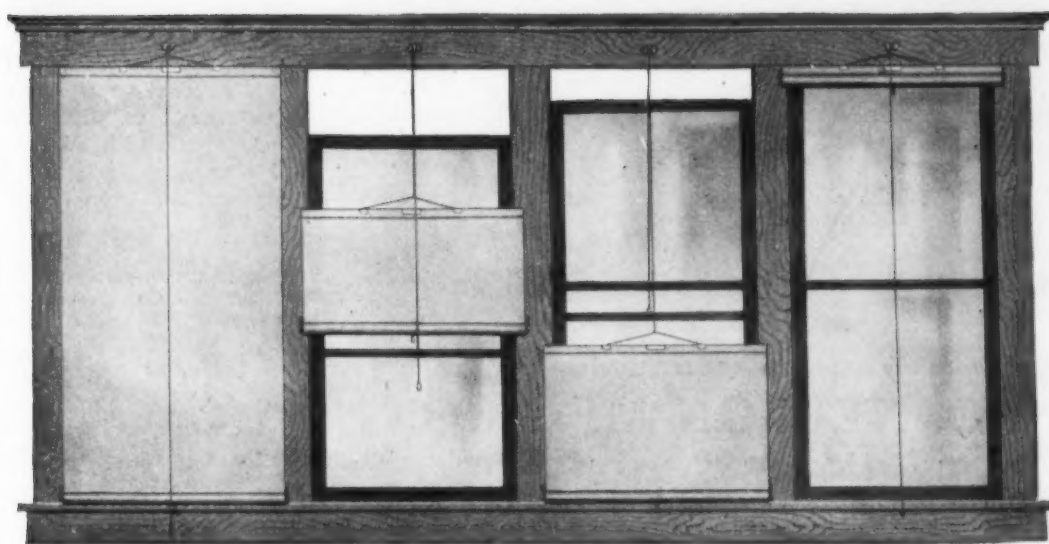
—Supt. A. E. Arterburn of Hillyard, Wash., in cooperation with a group of teachers, has made a survey of the commerce and industry of the city preparatory to the inauguration of a compulsory, part-time system. In the survey, industrial and business employers were consulted regarding the educational needs of employees under 18 years of age.

—Rochester, N. H. Intelligence tests were recently made of all grade and high school students, with the purpose of indicating the general native ability of the students. The tests were similar to those used so successfully in the army and have been made the basis for promotion of students who attain high scores.

Draper's Adjustable Window Shades

*Modern**Practical**Decorative*

"The Window Shade Pre-eminent"



Draper's Adjustable Window Shades merit the careful consideration of the careful buyer—the buyer who measures the cost by years of service.

Draper's Adjustable Window Shades are guaranteed to give satisfactory service and will continue to do so over a long period of years, — because, Draper's Adjustable Window Shades are built for service—and meet every window shade requirement most satisfactorily, efficiently and economically.

Their mechanical construction is simple, positive in action and absolutely "fool-proof." The rollers, which are especially built, are large and strong and are equipped with an oversized spring which insures their rolling and carrying qualities. They have no delicate parts to get out of order—are sturdily built and guaranteed to withstand the hard usage and abuse to which school property is subjected.

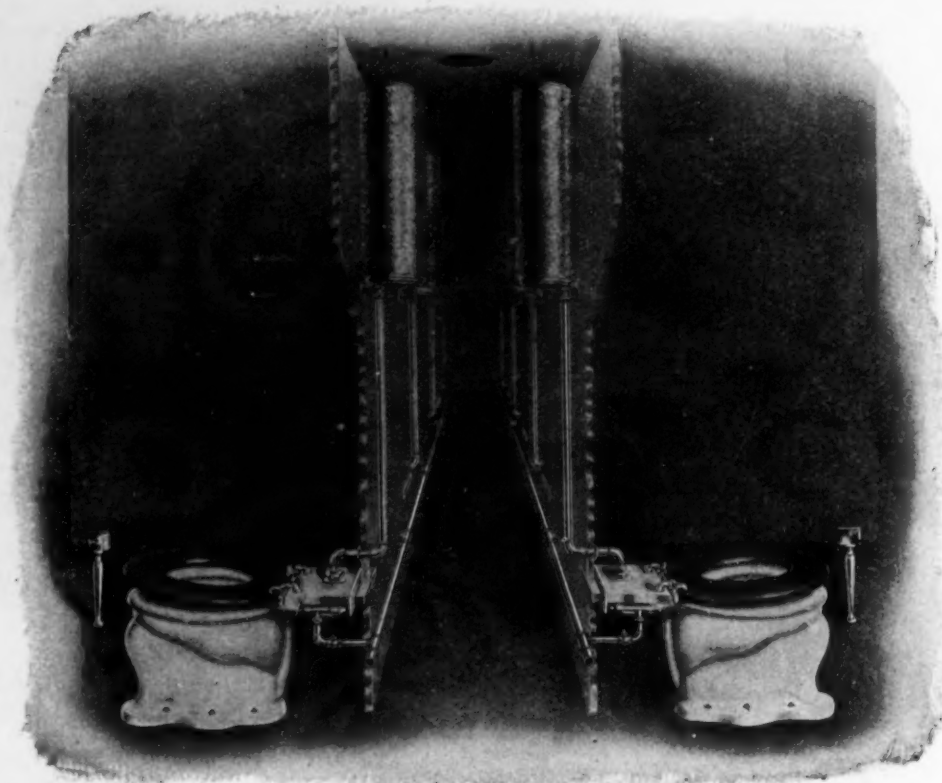
*Draper's Adjustable Window Shades
Meet Every School Requirement*

Investigate the different distinctive features of Draper's Adjustable Window Shades at Atlantic City during the N. E. A. Convention, Feb. 28 to March 3rd.

DESCRIPTIVE LITERATURE ON REQUEST.

LUTHER O. DRAPER SHADE COMPANY, Spiceland, Indiana

"KONCO" PLUMBING FIXTURES FOR SCHOOLS



"The Standard for Over Forty Years"

"KONCO" Plumbing Fixtures reflect in every detail the accumulated knowledge and skill of over forty years of experience in manufacturing plumbing fixtures for schools. They are as nearly perfect in every respect as is humanly possible to make them. They not only combine mechanical perfection with beauty of appearance but are absolutely sanitary as well. The free open construction of **"KONCO"** Plumbing Fixtures makes it easy to keep them clean.

Remember!

We have been manufacturing plumbing fixtures and have studied school requirements for over forty years. **"KONCO"** Plumbing Fixtures are the direct result of this extended study and are guaranteed to withstand the hard usage and abuse to which school property is subjected and to give satisfactory service under the most unusual and trying conditions.

Let us furnish your requirements. We know just what is required and are prepared to supply you with the very best.

VENTILATED CLOSET STALLS WITH UTILITY CHAMBER



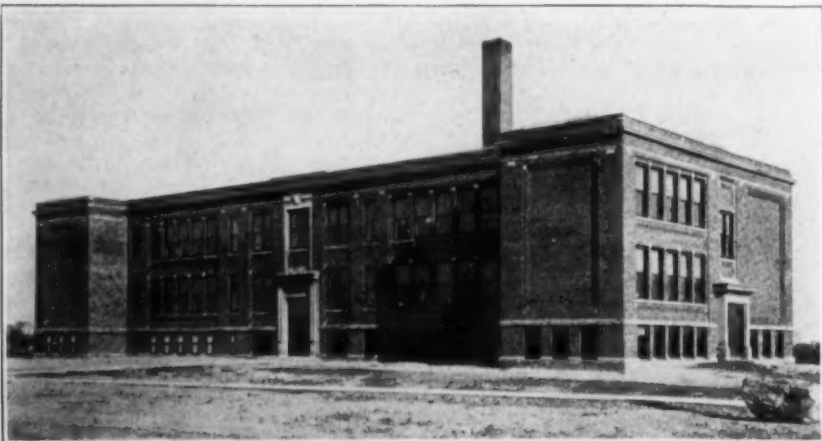
N. O. NELSON MFG CO.

Edwardsville, Illinois
Saint Louis, Missouri

Branches { Los Angeles, Calif.
Memphis, Tenn.
Davenport, Ia.

Pueblo, Colo.
Houston, Texas
Little Rock, Ark.

Salt Lake City, Utah
Birmingham, Alabama



24TH STREET SCHOOL, NIAGARA FALLS, N. Y.
Architect, Chester R. Phelps.

It is of the utmost importance that school buildings should be ventilated according to the most advanced knowledge and practice and every school board should give this item of building construction their most serious thought.

Until a few years ago, the ventilation of school buildings was regarded as a luxury, and while the discomforts and unhealthful conditions in poorly ventilated class-rooms were always known, the necessity of installing intricate and elaborate systems tended to retard progress in this important item of school building.

With the Peerless Unit System each room has its own Heating and Ventilating System.

THE PEERLESS UNIT.

The Peerless Unit is located in the room to be ventilated, taking its air from the outside to be heated, and cleansing it of its dust and dirt, discharges it into the room toward the ceiling at a velocity that gives it the best circulation without drafts and at a minimum of energy.

PEERLESS UNIT VENTILATION CO., INC.,
521 West 23d St., NEW YORK.

The proper regulation of temperature and moisture in the school room calls first for an accurate guide.

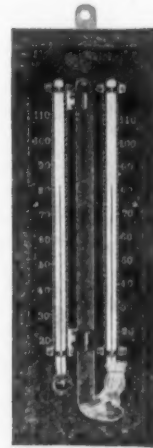
Many Schools and other Public Buildings are equipped with

WILDER
TROY, N.Y.

ACCURATE THERMOMETERS
AND
HYGROMETERS



Mission Oak
1410



Hygrometer



Golden Oak
1582

**THIS IS A MATTER OF HEALTH.
BE ACCURATE.**

Write for further particulars.

THE WILDER-PIKE THERMOMETER CO.
TROY, N. Y., U. S. A.

THE BRUNSWICK-BALKE-COLLENDER CO.
WHALE-BONE-ITE
 PAT. OFF. CLOSET SEATS

A Few Installations in Schools of National Reputation:

Jesse Spaulding School, Chicago.
 A. O. Serton School, Chicago.
 Jacob A. Riis School, Chicago.
 Pullman School of Manual Tr'ng, Chicago.
 Columbia University, New York City.
 North Western Naval Academy, Lake Forest, Ill.
 Joliet High School, Joliet, Ill.
 High School, Joplin, Mo.
 Blessed Sacrament School, Albany, N. Y.
 Peekskill Military Academy, Peekskill, N. Y.
 Wilkinsburg High School, Wilkinsburg, Pa.
 Academy High School, Erie, Pa.
 High School, Charleston, W. Va.
 Rawling School, Cleveland, Ohio.
 Daniel Worley, Canton, Ohio.
 Wilberforce University, Lima, Ohio.
 Central High and Others, Minneapolis, Minn.
 Dunwoody Institute, Minneapolis, Minn.
 Marrillac Seminary, St. Louis, Mo.
 Loretta Academy, St. Louis, Mo.
 Chemical Bldg., U. of Utah, Ogden, Utah.
 North Side Jr. High School, Ogden, Utah.
 Assumption College, Sandwich, Canada.
 Public Schools, New York City.
 Mass. Institute of Tech., Boston, Mass.

Polytechnic Institute, Worcester, Mass.
 Schools, Southbridge, Mass.
 Lincoln School, New Haven, Conn.
 High School, Hartford, Conn.
 University of Michigan, Ann Arbor, Mich.
 Highland Park High School, Highland Park, Mich.
 Administration Building, Normal School, Ypsilanti, Mich.
 Lincoln School, Detroit, Mich.
 Michigan Agricultural College, Lansing, Mich.
 State Normal, Keene, N. H.
 Schools (7), Jacksonville, Fla.
 St. Ambrose College, Davenport, Iowa.
 Grinnell College, Grinnell, Iowa.
 Delaware College, Wilmington, Del.
 Throop Polytechnic College, Pasadena, Calif.
 Colusa School, Colusa, Calif.
 Emporia College, Emporia, Kans.
 University of Texas, Austin, Texas.
 University Building, Corvallis, Oregon.
 Bowdoin College Dormitory, Brunswick, Me.
 State Normal College, Aberdeen, S. Dak.
 Flint Schools, Flint, Mich.
 Bliss Electric School, Takoma Park, D. C.



Cut Shows No. 23-9 Seat
 Open front for regular bowls



Cut Shows No. 21-9 Seat
 For extended lip bowls

Eventually? NOW!

Holiday Repairs Promptly Supplied

THE BRUNSWICK-BALKE-COLLENDER CO.
 1623 S. WABASH AVE. CHICAGO

TEACHERS AND ADMINISTRATION.

Montclair, N. J. The local teachers' organization has recently purchased a piece of property comprising a building and land, in the center of the city, at a cost of \$31,000. The building, which solves the problem of satisfactory living accommodations, provides rooms for thirteen teachers. It also serves as club headquarters for the teachers of the city.

—The Schoolmasters' Round Table of Western Connecticut has suggested a means for relieving the deficiency of properly qualified teachers for the schools. The suggestions are as follows:

1. It is a fundamental duty to provide properly qualified teachers in numbers equivalent to the needs.
2. It is a function of the state to take measures to aid and to assure the fulfillment of the duty by the towns.
3. The state legislature is asked to enact legislation encouraging each town or city to take suitable steps for assuring qualified teachers equivalent to its own needs.
4. The legislature should make immediate appropriations for furnishing the remaining normal schools with healthful living conditions and with social life for the students.
5. The Club asks that the state commissioner use his efforts in securing a state school visitor for stimulating educational interest.

—The finance committee of the Milwaukee, Wis., board of school directors has adopted a resolution which provides for the giving of fifty per cent credit for grade school experience in determining high school teachers' salaries for the ensuing calendar year.

A proviso has also been made to the effect that no teacher with grade school experience, who transfers to the high school teacher's position, may receive less than the salary which would have been paid had the teacher remained in the grade school.

—The school board of Portland, Ore., has adopted a salary schedule which is intended to serve as a guide toward which school boards may work.

The schedule which emphasizes professional

preparation, provides that teachers with normal school diplomas may receive a minimum salary of \$1,200 under the plan; those with a bachelor's degree \$1,440; and those with a master's degree \$1,680. The first class will receive annual increases for six years, reaching a maximum of \$1,920. Those in the second class will receive increases for eight years, with a maximum of \$2,400, and those in the third group will receive increases for nine years, receiving a maximum of \$2,760.

—Louisville, Ky. The board has discontinued a rule under which teachers were allowed ten days a year sick leave. The board was compelled to take action because of a curtailment of the budget.

—The school board of Warren, Pa., has insured the lives of all its employees under the group insurance plan, as follows:

Less than a year's service, \$500.

One year's service, \$750.

Two or more years' service, \$1,000.

An annual increase of \$250 per annum is provided until the maximum of \$2,000 is reached. To meet any possible question as to the authority of the board in the matter, it has been decided to grant a bonus equal to the cost of the insurance.

A recent report of the secretary of the pension board of Illinois shows that 1,706 teachers have been retired under the state teachers' pension and retirement fund and over 25,000 teachers are contributors to the fund. About thirty teachers were added to the list in October, among whom were two former superintendents, Mr. Hugh S. Magill, field secretary of the N. E. A., and Mr. John K. Stableton.

—The school board of Harrisburg, Pa., has appointed a special committee to make a study of health insurance for teachers under the group plan.

—The school board of Providence, R. I., has removed the restriction against married women teachers.

—Washington, D. C. General dissatisfaction has been expressed by half-day teachers against a new rule requiring them to teach five, instead

of three, hours a day. The half-day teachers hold that they have always given more than the required three hours, and they point out that even three hours' work is trying when very young children are taught.

—At the annual meeting of the Boston Teachers' Retirement Fund Association, the death benefit problem was taken up. It was urged that the board of trustees seek legislation by which the estates of deceased teachers may receive a refund of one-half the money contributed to the fund. At present provision is made to refund to teachers who leave the service, but no provision is made for teachers who contribute to the pension fund and die before they are eligible to receive pensions.

—Tarrant County, Texas has undertaken to solve the problem of shortage of teachers. Where salaries are too low to meet the cost of living, the school boards have reduced the living expenses. This has been done by the erection of homes in which the teachers may live while teaching.

In the Diamond Hill District of Fort Worth, a large apartment house has been erected at a cost of \$16,000. Apartments are rented to teachers at a nominal rental of \$5 per month. Plans are under way for the erection of a second apartment house, which it is believed will afford ample accommodations for those who desire such living quarters.

—New York, N. Y. Substantial changes in the method of examining the promoting teachers are expected as a result of action recently taken by the board. A committee has been appointed to study a proposed plan for recognizing teachers and supervisors, who render exceptional service, and for devising means whereby teachers who feel aggrieved at their ratings, may appeal for re-rating.

—Representatives of the teachers' unions of the eastern states have adopted resolutions urging all teachers to affiliate themselves with the labor unions for the purpose of obtaining better pay, more secure tenure, and satisfactory working conditions.

Why Not a District Sanitation Superintendent?

"If I were told that my Christmas wish for 1920 were to come true, it would be for the boys and girls of America and it would be this:

I wish that every boy and girl in the schools of America were provided with adequate and sanitary buildings erected as temples of health wherein a sound mind would be enthroned on a sound body. For what profiteth it a child if he gain the wisdom of the world and lose his own health!"—D. Fred Aungst, School Board Journal, Dec., 1920.

WHY should District School Boards not be empowered by law to employ a competent man whose *sole duty* it should be to standardize on proper Sanitation equipment, and to raise the *level* of health, comfort and morals in all of the schools in his district?

Do we, as taxpayers, not care enough about the health and morals of our children to see that a practical man of courage and enlightened viewpoint is put in such a responsible post, and that his salary and the appropriation for his work is sufficient at least to accomplish sorely needed reforms?



Or are we still placidly content to see, in country districts out of reach of sewers and plumbing a total inertia and indifference on the part of superintendents, due to lack of funds or lack of initiative or lack of specific responsibility, which results in the continued use of the unspeakably vile and degrading *privy*?

If someone were made to feel responsible for these conditions and given the power to act that must be coincident with responsibility, we, as manufacturers and advocates of the idea, would feel that our existence had been justified by a genuine service to future generations and the fact that plumbing supply manufacturers generally and our friendly competitors in the field of chemical sanitation, would also benefit by such legislation, would add only joy to our cup.

CHEMICAL TOILET CORPORATION

Desk A

Syracuse, N. Y.

Other recommendations were for \$2,000 minimum for teachers in all grades, and as nearly as possible a uniform method of compensation for all grades; the trial of teachers under charges by a trial board composed of three members of the board, three teachers and a seventh member to be selected by the six; the establishment of an examiner's appeal board and the promotion of schools for labor education.

—The Concho-Colorado Educational Association, embracing all Texas counties west of Brownwood, has been organized. Mr. J. H. Armstrong of San Angelo has been made president and J. J. Bugg of Ballinger vice-president.

—Extensive possibilities for the development of group insurance have been revealed in the recent action of the South School District of Hartford, Conn., which has taken out a group accident and sickness policy with the Aetna Life Insurance Company. The plan takes care of 180 or more teachers employed in five schools and calls for a premium of little more than \$4,000 a year. It provides for half pay for teachers for thirteen weeks, for sickness or accident, but the policy is not effective if the teacher is injured outside of school hours.

—Fort Collins, Colo. The school board has erected a large apartment house for teachers at a cost of \$35,000. The building is in the form of a sorority house and provides accommodations for two score of women teachers.

—The Connecticut Teachers' Association has asked the legislature to approve a plan for a reduction of the required term of service before a teacher may benefit by the pension law from 20 to 15 years. Efforts have been made to effect more stringent safeguards for the employment of teachers.

A proposed change in the law of allowance on retirement includes an increase in amount from the present \$300 to \$400. This is to apply to teachers now retired, payments to be made after the passage of the act.

—The attorney general of Indiana has ruled that a teacher regularly employed and licensed may not serve as a member of the local school board where he is employed. The attorney gen-

eral held that service on a board and on a school faculty, by the same person, are contrary to public policy, in that a person's public duty might at times conflict with private interests.

—Altho Indiana has been backward in the establishment of junior high schools and six-year high schools, the newer system has gained a foothold in the state during the last year. The high school department in the office of the state superintendent reports that three large junior high schools were recognized and accredited by the state last year. These schools are at Anderson, Bedford and Brazil.

There were nineteen six-year high schools accredited during the year. These schools include the seventh and eighth grades in the high school proper, thus permitting a reduction in the educational expense by using the high school faculty to teach the two lower grades.

—Worcester, Mass. The clerk of the school board has estimated that lead pencils used by the 30,000 school children in the course of a year, if placed end to end, would make a super-pencil 146 miles long. More than forty tons of writing paper are also used by the children. About 900 gross of pencils, of different kinds, are consumed from the opening of school in September to the close of the year in June. There have been times when it was difficult to get a proper supply of pencils and paper but there was never a time when the children were obliged to do without a fair supply of both.

Astoria, Ore. The night school has opened with an enrollment of over two hundred students and a faculty of eight teachers. About a dozen nationalities are represented in classes composed of both men and women.

The Pennsylvania state department of public instruction will conduct an investigation on the charges that British propaganda has made its impress upon the history textbooks used in the public schools of that state.

The Chicago school building program for the year contemplates an expenditure of \$30,000,000.

PERSONAL NEWS OF SUPERINTENDENTS.

—Mr. Frederick H. Nickerson has been elected

superintendent of schools at Quincy, Mass., to succeed Albert L. Barbour resigned.

—D. H. Brown, superintendent of schools at Peru, Ind., has resigned following charges by the state board of irregularities in the certification of high school credits.

—Dr. Edwin C. Wade, of Bluefield, W. Va., has become head of the schools at Florence, S. C.

—The salary of Supt. H. B. Turner, at Warren, O., has been raised from \$5,000 to \$6,000 a year.

—Mr. Clinton J. Richards has been elected to the superintendency of the Hadley-Hatfield District of Massachusetts, at a salary of \$3,000. Mr. Richards enters upon his new work in June next.

—Mr. Norman J. Bond, formerly superintendent in the Hatfield-Hadley District of Massachusetts, has been elected to the superintendency at West Springfield.

—Mr. John Gray has announced his resignation as superintendent of schools at Chicopee, Mass., to take effect next June. Mr. Gray is succeeded by Mr. John J. Desmond, principal of the Chicopee high school.

—Inspector J. B. Edmonson of the University of Michigan, has been reelected to serve a sixth term as chairman of the State Board for the administration of the Michigan Teachers' Pension Law.

—Supt. C. L. Poor, of Traverse City, Mich., has become president of the Michigan Teachers' Association. The organization has a membership of twelve thousand and expends an income of \$12,000 on constructive work for its members.

—Supt. P. C. Stetson of Muskegon, Mich., has been placed on the 1921 summer school faculty of the University of Chicago.

—Supt. J. W. Sexton of Lansing, Mich., and L. A. Butler of Ann Arbor, will conduct courses in the Department of Education of the University of Michigan, during the coming summer session.

—Mr. G. F. Loomis, formerly superintendent of schools at Waukesha, Wis., has entered upon a special college course preparatory to re-entering the educational field. Mr. Loomis has for some time been engaged in private business at Waukesha where he had remained since leaving the superintendency some time ago.



Robertson's Quality Cleaning Products

Robertson's Products Include

Disinfectants,
Liquid Soaps,
Soap Powders,
Scouring Powders,
Paper Towels,
Toilet Paper,
Mops,
Brushes,
Liquid Soap Dispensers,
Paper Towel Holders,
Etc., Etc.

Get our prices.

CATALOG FURNISHED
ON REQUEST



Implant the instinct of cleanliness in the minds of your pupils thru the clean and sanitary conditions of your school building.

Robertson's Quality Cleaning Products include a product for *every* cleaning purpose. Your janitor with the aid of Robertson's Quality Cleaning Products can easily keep your school in a thoroughly clean and sanitary condition at all times, at a minimum of cost and effort.

For over twenty years the House of Robertson has specialized on schoolroom cleanliness and disinfection. The name "Robertson" on a product means more than merely a method of identification. It is a symbol of cleanliness and a mark of quality on every product that bears it.

Simplify your cleaning problems—supply your janitor with Robertson's Quality Cleaning Products. Make it easy for him to keep the school clean. With their use the daily cleaning will take less time and the school will be cleaner and more inviting than ever before.

Don't overlook getting in touch with us before ordering your next lot of Janitor Supplies. Our suggestions will prove helpful and economical.

Theo. B. Robertson Products Co., Inc.

Member, National School Supply Association.

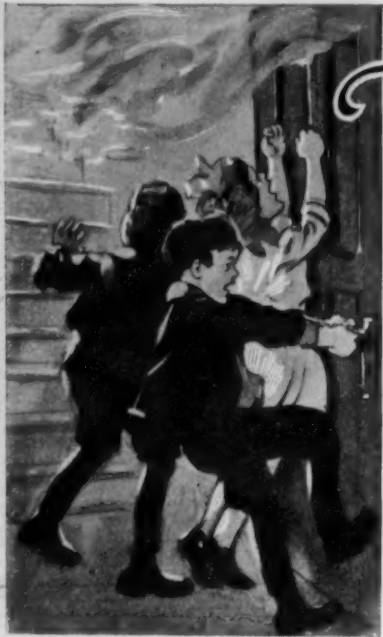
700-704 W. Division Street

Chicago, Illinois

REPRESENTATIVES:

School Service Co., W. B. Mooney, Mgr.,
328 Empire Building,
Denver, Colorado.

Atanasio Montoya,
220 North High Street,
Albuquerque, New Mexico.



Trapped!

A sudden burst of smoke, a leaping tongue of flame, a rush altogether to the doors — only to find that they won't open!

Do you want a tragedy like this to point its accusing finger at you?

Do not neglect those avenues of human safety—but in your selection of Exit Devices, be SURE they are so made as to PERFORM.

Van Kannel Automatic Exit Devices

But a few of the reasons for the universal specification of these Devices are:

- 1—**Strike Plate.** Strike plates are securely embedded, FLUSH with floor. No projections to stumble over.
- 2—**Reversible.** The same lock is applicable to either left or right-hand door.
- 3—**Plate Control.** Releasing bar is assembled within door, clearance being less than width of human hand—nothing can wedge or prevent operation.
- 4—**Materials.** Made of best materials obtainable—furnished with any desired combination of standard hardware.
- 5—**Price.** From standpoint of service the cheapest Exit Device you can buy.
- 6—**Endorsement.** Underwriters' Laboratories of Chicago, Board of Standards of New York, Fire Dept., New York, Aetna Fire Insurance Co. and Fidelity & Casualty Co.

Send for our latest Catalog.
Also see Sweet's Catalog.

VAN KANNEL CORPORATION
250 West 54th Street, New York

MAIL THIS COUPON TODAY.

VAN KANNEL CORPORATION,
250 West 54th Street, New York.

Please send your catalog of Automatic Exit Devices to

Institution

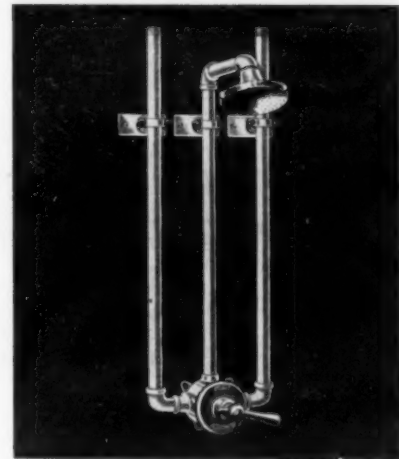
By

Address

THE INCOMPARABLE NIEDECKEN MIXER SHOWERS

PATENTED
FOR THE SCHOOL

E
C
O
N
O
M
Y



S
H
O
W
E
R

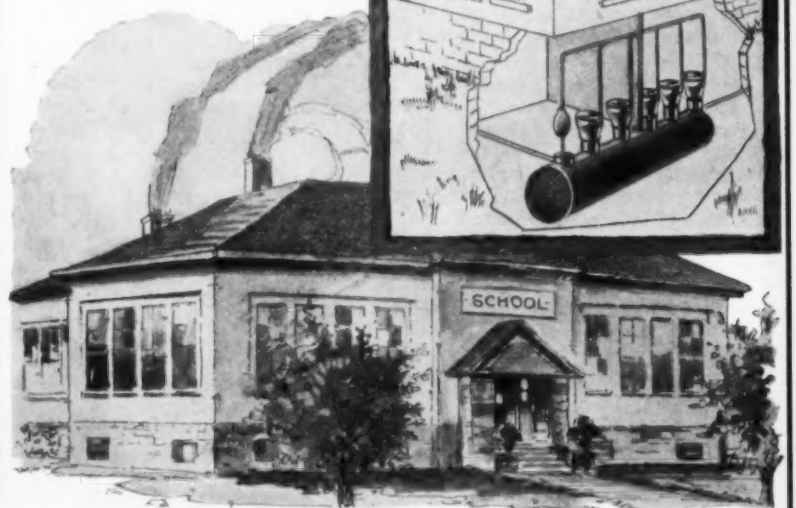
NR. 150

Mixer and Shower Head, piping not included, \$32.00.

Write for Bulletin SB 15 X

HOFFMANN & BILLINGS MFG. CO.
MANUFACTURERS SINCE 1855.
MILWAUKEE, U. S. A.

"STANDARD AUTOMATIC"



CHEMICAL TOILETS FOR SCHOOLS

EMBODY EXCLUSIVE, DISTINCTIVE FEATURES

WE SOLICIT DISTRIBUTION THROUGH
ESTABLISHED SCHOOL SUPPLY JOBBERS

District and Local Representatives Wanted

STANDARD STEEL CORPORATION
MILWAUKEE, WISCONSIN

Five school fires every day in the year!

Illustration below shows one of the Asbestos School Houses.

NO REPAIRS—FIREPROOF—NO PAINTING



THE CHEAPEST PERMANENT SCHOOL BUILDING

The Asbestos school house is much less expensive than an ordinary brick or stone structure. It requires no repairs and is absolutely fire-proof.

Asbestos Buildings

If more Asbestos school houses were used the average of five school fires every day would be greatly reduced.

We can supply the Asbestos school houses in one and two room buildings and will submit prices on request.

Send for Catalog

Asbestos Buildings Company
1927 Market Street, Philadelphia

ONE-STORY VERSUS TWO-STORY SCHOOLS.

To the Editors:

The writer read with interest sometime ago the very excellent article by Mr. Dwight H. Perkins of Chicago on the comparative cost of school buildings of the one-story and two-story types. In reading this article, however, I have felt that the conclusions drawn were somewhat misleading, due to a premise on which the comparison was based and with which I would want to take issue with Mr. Perkins. This is that the two types of building can be compared on the same per cubic foot cost basis. Rather, the argument in favor of the two-story type, because of its economy of construction, is based, not on its lesser cubic contents but on its greater economy of construction per cubic foot.

Hence, if as Mr. Perkins alleges, the two types of building with equivalent usable area can be planned with nearly identical cubic contents there would still be a considerable disparity in the cost of the two, due to the fact that the one-story building would have a disproportionate amount of foundation, cornice and roof, forcing the cost up from 15 to 25 percent.

Using prices prevalent at the time Mr. Perkins' article was written, if a two-story building would cost in the neighborhood of 20 cents a cubic foot, a one-story building of equivalent capacity would cost about 25 cents a cubic foot, hence the major argument in favor of the two-story type.

I think that you will readily see the point to this argument and that architects in general will be inclined to agree with me in my contention, altho they may not be in accord as to the percentage of difference per cubic foot.

Respectfully yours,

(Signed) W. W. Beach.

HIGH SCHOOL ADMINISTRATION.

—The work of the dean of girls in the Billings High School, at Billings, Mont., has resolved itself into two classes of problems, namely, those of the individual and those of the group. One of the problems of the individual is the girl from the country district who either works or

pays for her board. It is part of the dean's work to see that the girls are placed in good homes and under proper care, and to see that they give and receive the right treatment. Another problem is that of adjustment. Sometimes, it may be trouble between a girl and a member of her family, or it may be a failure at school or a misunderstanding with a classmate or teacher.

In addition to these and other problems, there are the group problems to be considered. To accomplish results in a constructive way, some kind of organization in which a group or groups can work together for mutual betterment and enjoyment, has seemed desirable. A league of girls has been proposed as a step toward an ideal of democracy. Class representatives, together with several teachers and the dean form an executive council for the league.

The executive council representing the entire league meets twice a month at some fixed time, to receive suggestions and to carry out the desires of their classes in the planning of social affairs and in making decisions on policies which appear desirable. Social meetings are held once a month, and arrangements for the meetings are made by the Council with the cooperation of the others. Under this plan, the girls have opportunity for self-expression and learn to recognize and to value each other's opinions and ideals. They have an opportunity to realize their social obligations and to fulfill them. In this way, beneficial group activities can be made to take the place of the harmful clique spirit.—*Violet W. Starkweather.*

TEACHERS' SALARIES.

—Lowell, Mass. Salary increases of from \$200 to \$230 for elementary and high school teachers went into effect with the first of January. The schedule provides for the following salaries:

Men high school teachers, seven year schedule, from \$1,700 minimum up to \$2,500 maximum. Women teachers begin at a minimum of \$1,400 and go to a maximum of \$2,000.

Masters in elementary schools begin at a minimum of \$1,920 and go to a maximum of

\$3,100. Women teachers begin at a minimum of \$1,200 and go to a maximum of \$1,700.

Special teachers and instructors in manual training are on a five-year schedule, beginning at a minimum of \$1,800 and going to a maximum of \$2,200.

—Medford, Mass. The school board has granted increases in salary aggregating \$40,000, and providing for \$100 additional annual salary, over and above the \$100 additional given last year. The new maximum since January first has been fixed at \$1,500 for grade teachers, \$1,600 for junior high school teachers, \$1,700 for women instructors and \$2,300 for men teachers in the high school. The new maximums are paid in accordance with the term of service, beginning with those in the employ of the city September first, 1920.

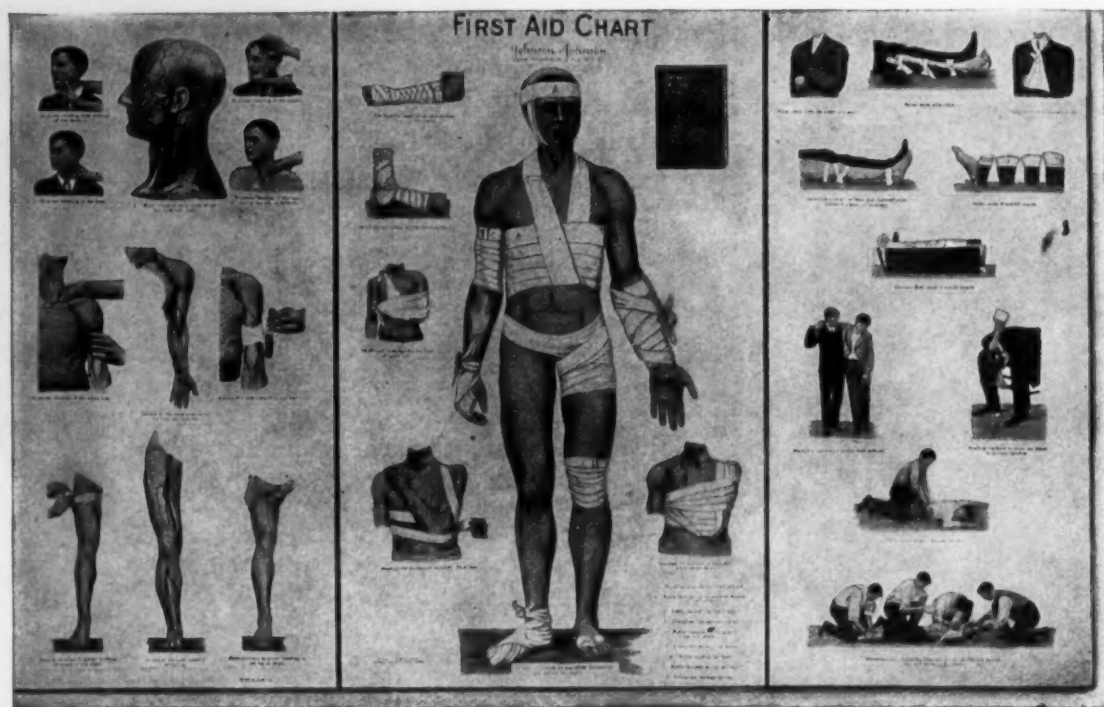
—Clinton, Mass. Flat increases of \$400 have been given all high and grade teachers. A minimum salary of \$1,500 has been established.

—Maryland teachers will receive yearly increases in salary ranging from \$100 to \$200 under a tentative scale prepared by Dr. Albert S. Cook, State Superintendent and Assistant Supt. George S. Reavis. The schedule which is to be approved by the governor, provides that the salary of teachers in the first grade shall be raised from \$800 to \$1,000. Teachers in the second grade will receive \$800 instead of \$700, and teachers in the third grade will receive \$700 and \$750 after three years. High school teachers will receive \$1,200 and \$1,400 after eight years.

—Yakima, Wash., has carried an election providing for a five-mill levy, the proceeds of which are to be used for teachers' salary increases.

—The school board of Boston, Mass., has officially accepted a bill signed by the governor increasing the salary of Boston teachers by \$216. The bill which becomes effective February first, gives the right to use 96 cents on each \$1,000 valuation on property in the city for school purposes. The increases in salary represent the remainder of the \$600 promised last year.

A VALUABLE SUPPLEMENT TO YOUR FIRST AID EQUIPMENT



The Chart is 27 x 44 inches, lithographed in ten colors on heavy board. Folds for carrying. The back of the Chart contains full First Aid instruction in black and white.

F R E E

to any school that is now giving attention to instruction in first aid and which is equipped with first aid material.

This handsome chart will be given with our compliments to any Superintendent or Principal who writes us about the work that is being done in this important subject.

The Chart as shown in the illustration is an education in itself and will hold student-interest when they tire of pondering over books.

To schools that do not have first aid equipment a chart will be given with each purchase of Johnson's First Aid Cabinet, No. 1.

A complete working guide for first aid instruction

JOHNSON & JOHNSON
NEW BRUNSWICK, N. J.

General Laboratory Supplies

Glassware and Metal apparatus—also Chemicals
THERMOMETERS, HYDROMETERS, ETC.



Mail orders promptly
attended to

One of our specialties:
**Balances and
Weights**

Prescription,
Sugar,
Pulp,
Jewelry,
Laboratory, etc.

Made of the very best material, steel knife edges, removable pans, nickel plated, mounted on mahogany box with leveling screws. Provided with drawers into which the balances can be packed away.

Capacity 75 grams or 2 ozs. Sensitive to 1 mgr. or 1-50 gr. Diameter of pans 75mm. (3 in.), length of beam 150mm (6 in.).

Price \$12.00

WEIGHTS for same of polished brass in wooden block
50 grams down to 1 cgr. per set \$4.00
100 grams down to 1 cgr. per set 5.00

Weight in ounces can also be furnished at the same prices.

MANUFACTURED BY THE
SCIENTIFIC UTILITIES CO., INC.
18 EAST 16TH STREET, NEW YORK

We can also supply all styles of Analytical and other Balances and Weights, as well as other laboratory supplies. Prices—upon request.



Quality Laboratory Apparatus

Electrically Heated Boiler (or Apparatus A), a new departure in the design of this useful apparatus, which permits of a wider range of application than any piece of apparatus invented in recent years.

The Heater may be used for experiments in Colorimetry or Thermometry, and for practically every other purpose in the laboratory wherein the Bunsen burner is employed.



No. 3236
Patented—\$23.00

Write for our new *Physics-Agriculture-Biology and Chemistry Catalog*, if you have not as yet received your copy.

SCHAAR & CO.

556-558 W. Jackson Blvd.
CHICAGO

Apparatus and Chemicals for the Industrial
and Educational Laboratory





DO YOU TEACH SCIENCE?

Agriculture? Biology? Chemistry? General Science? Physics?

ONLY those who have used Milvay Laboratory Apparatus can comprehend how perfectly it meets every requirement of modern science teaching. It is dependable—giving, under actual laboratory conditions, the utmost in reliable service and results.

It is well built—providing durable instruments safe even in the hands of students. It is neat in appearance—being finished in keeping with the excellence of the workmanship and materials entering into its construction.

Milvay Apparatus is distinctive—having many valuable features not found in apparatus of any other make. For instance—the non-curling, non-peeling, pure white enameled dial in the Milvay Op-

tical Disc. The "incandescent-bulb-spark plug" in the Milvay Gas Engine Model.

The friction-head micrometer in the Milvay Linear Expansion Apparatus. The metal parts—valves, plungers, inlet tubes, etc.—in the Milvay Lift Pump, Force Pump and Hydraulic Press Models. The cut crystals in Milvay Tourmaline Tongs.

Much as these features are appreciated, there is another good reason for the ever increasing popularity of Milvay Apparatus—and that is a service that assures prompt deliveries.

Besides, Milvay Apparatus is economical—combining a moderate first cost with many years of

reliable service and results at little or no upkeep.

Back of Milvay Apparatus is an organization that for years has been building towards one end—to make the name Milvay a mark of quality, service and economy in laboratory apparatus.

Genuine Milvay Apparatus bears the registered trade mark shown in the lower left hand corner. Look for it. Always specify it on your orders and requisitions.

Learn more about Milvay Apparatus, Service and Economy by sending for our large 164-page illustrated General Catalog No. 27E. It is free to science teachers. Send for your copy today.

13TH
YEAR



CHICAGO APPARATUS COMPANY

31 SOUTH CLINTON STREET—CHICAGO, ILL.

RURAL SCHOOLS AND THE MOTOR TRUCK.

The experience of the past few years has taught that the motor truck has become a tremendous aid to the rural schools. It has proven of special service to the consolidation movement. The transportation of pupils is the great factor to be dealt with, and while the horse has been of service in the past the automobile promises to secure the ultimate efficiency desired.

The defects of the one-room school and the great advantage of the consolidated school affording to the children of the rural districts the same advantages afforded in the cities are well established. The movement towards centralization has had to deal with the question of expeditious transportation facilities. The motor truck has been brought into play and has demonstrated its utility. Pupils are conveyed to and from school with a minimum of expenditure of time and money besides permitting a larger area to be traveled than could be traveled with the old time horse and wagon service.

The commercial factors are now concerning themselves in the question. The Firestone Tire Co. has issued a pamphlet prepared by competent experts dealing with the rural school consolidation and transportation problem. A few extracts may prove of interest:

Transportation Area.

"In at least 44 states today authority is given to school officers by the state legislature to expend public funds for the transportation of children to schools, provided the children live beyond a reasonable walking distance. It is necessary, of course, to have such authorization before the larger consolidated districts can be established. A consolidated area of nine or twelve square miles would hardly need public transportation, but consolidations so small do not usually provide an adequate taxing unit. It is impossible to say just how large a consolidation should be, since there are so many different factors that would enter into the determination, such as population, land values, kind of transportation to be used (motor or horse,) condition

of roads, topography of the country, and standard of school desired. Of the above factors, the kind of conveyance to be employed to transport the children is one of the most important.

"If auto transportation is feasible thruout the year, the district may be very much larger than if it had to depend upon the team haul. In the latter case a district of 20 to 30 square miles has been found to be the most desirable. To exceed 30 square miles usually produces some rather difficult problems for horse transportation. Moreover, very little can be said in favor of the small consolidated district with a low taxable valuation and less than 100 children of school age. It is universally unsatisfactory. There are today a great many consolidations of this class that realize the mistake that was made and are having a pretty hard pull to get along. Where it is possible to expand, many of these small districts are doing so. It is absolutely necessary to have children enough and a large enough valuation of property to support the kind of school desired, without excessive tax. Under favorable conditions, therefore, it is advisable to establish consolidations as large as possible. The people of each locality must determine for themselves what size of consolidation will be the most economic. There is a real danger in making the consolidation too small because it generally defeats a more effective consolidation later on.

"Because the consolidated school to which children are transported in public conveyances cannot be satisfactory unless transportation itself is satisfactory, this factor is of great importance. Transportation must be safe, rapid, comfortable and in charge of competent drivers of high character. If it has these qualities there will be very little trouble resulting from it. In schools where transportation has not given satisfaction the difficulty can often be traced either to the driver or the form of conveyance, and in either case the trouble can usually be remedied quite easily. Transportation has been universally satisfactory wherever it has been properly handled."

Auto Bus vs. Horse Hack.

Some interesting tables showing the time consumed by horse service against the auto service are presented. For instance, Randolph County, Indiana, shows that it takes one hour and 45 minutes to bring in the children on a distance of four and a half miles or two hours to cover seven mile routes. Other counties in other states show practically the same results. The condition of the roads, the location of pupils and other conditions may cause some variations in the time.

While the horse will average from four to seven miles within a given period of time the auto bus will triple and quadruple the distance at the same cost. Or, put in another way, the auto will cover three or four times the area. In Rio County, Colorado, for instance, the daily distance of travel averages between thirteen and twenty-two miles consuming a maximum of time of two hours and twenty minutes. In some instances the cost of the motor bus hire is a dollar or two higher than the horse and wagon but the difference is too nominal to become a factor.

Public Ownership of Vehicles.

The arguments are advanced, by those who claim to know, that public ownership and control of the motor bus is more advantageous than private ownership. Here is what is claimed:

1. Control generally goes with ownership. Sometimes the superintendent must lengthen or change routes. Driver-owners of busses are not always willing to meet these adjustments.

2. It is sometimes very difficult to find the right kind of a driver to invest his money in a bus. If the school owns the bus it is much easier to get a good driver.

3. An incompetent driver who owns his bus cannot easily be dismissed because a successor cannot always be found who would be willing to invest his money in such an undertaking.

4. School ownership usually means better and more comfortable busses since making money is not the school's object.

5. If properly managed the cost of transportation is generally cheaper under school ownership.

A Complete School on Short Notice



Togan Factory Built Schools embody all the advantages of a permanent building.

Togan construction insures dry, warm and sanitary class room facilities during the entire year.

Particular attention has been given to lighting and ventilation. With all of these details assured nothing more would be required of any building.

But Togan Schools have another desirable feature. They are

factory built—shipped to you complete, ready to erect; inexperienced men can bolt them together in a short time.

Additions may be made at any time. The building will salvage at nearly 100 cents on the dollar when you want to sell it or use it again in some other location.

Your lumber dealer knows Togan buildings. Tell him your needs. An experienced man from the factory will assist him to give you what you want and will superintend the erection of the job.

SOLD BY RETAIL LUMBER DEALERS

TOGAN-STILES
GRAND RAPIDS, MICHIGAN.

6. The number of instances of breakdowns and delays is fewer under school ownership. The busses are usually kept in better repair and can be frequently and uniformly inspected.

7. Drivers can be secured more cheaply under school ownership. In the Sargent School in Colorado eight teachers and two high-school boys drive the ten auto busses and receive a monthly salary of \$25.00 each. This would not be possible under private ownership.

HYGIENE AND SANITATION.

—Oklahoma City. The first open air school in the city was opened in November 1920 with sixteen pupils in attendance. The school is under the medical supervision of Dr. H. H. Cloudman, city school physician. The project was made possible thru the local tuberculosis society which furnishes food for lunches, a nurse attendant and equipment.

Minot, N. D. A dental clinic has been opened. A dentist on half-time and an assistant have charge of the clinic. The clinic is maintained by the school board, the high school alumni association and the local dentists' society. In addition to the work of examining and treating teeth, the dentists make it a practice to teach the value of oral hygiene.

Pupils from grades one to eight are weighed during each six-week period and a report is sent to the child's home. A special nutrition class has been organized and an effort is made to bring all children to the normal weight standard.

Arrangements have been made for giving six hundred under-nourished children milk lunches at a cost to the individual child of five cents. In addition to the milk sold to the children, one thousand quarts are sold daily to parents at a cost of fifteen cents. The milk meets the standards for health and represents a saving of six cents to each consumer.

Efforts have been directed to the bringing of under-nourished children to normal weight and strength. Each child is weighed monthly and a statement is sent the parent showing the actual weight and the weight which the child should at-

tain. The United States height and weight charts are used in determining the proper relation of weight to height.

A completely equipped dental clinic has been established at Plymouth, Mass.

Montclair, N. J. The local Red Cross organization has undertaken the financial support of a school dental clinic this year. A suitable room, with complete office equipment, has been provided and a dentist employed on half-time.

Nutrition classes for anemic children have replaced the customary open-air classes at Montclair, N. J. The pupils who study in the regular classrooms, are provided at cost with nourishing food and are required to take an hour's rest in a well-ventilated room. The plan is economical in operation and the results justify the change in procedure.

A free clinic for school children whose parents cannot afford to pay for the proper medical treatment has been established at the Child Welfare Office, Lawrence, Mass. The clinic, which is open one hour on Tuesday of each week, is in charge of several school physicians.

A physical director has been employed at Athens, Ga., to have charge of the day school work and to supervise the afternoon playgrounds. A fund of \$1,800 will be gathered by the several local organizations for the equipment of playgrounds.

—La Moure County, North Dakota, has made successful progress in the promotion of the health of school children. During the past year, of 169 children examined, 64½ per cent were found to be defective and 35½ per cent were normal. Of the children designated as defective, from 25 per cent to 40 per cent of the cases were given proper attention thru the help of the county nurse.

This year, in the city schools, considerable attention has been given to the elimination of malnutrition among grade pupils. Every underweight child is given a glass of milk each morning of the school week. The milk is provided at the small cost of three cents per glass, or fifteen cents per week, and this is paid by the parents, or by the school board where the

former are not able to pay. The children are weighed each month and the results are tabulated.

—Wabash, Ind. The health program of the schools has been enlarged to include the weighing of children. Children who are under-nourished are given milk lunches at recess time, both morning and afternoon, as a means of bringing them up to the normal weight. The lunches are served at cost.

—Butte, Mont. The board has granted the use of a room in the administration building for a dental clinic. The board furnishes the necessary connections for running water and the local dentists give their services free. The operating expenses will be met from a special Red Cross fund of \$1,000.

—The Supreme Court of the state of Washington, reversing a ruling of the King County Superior court, has declared the maintenance of free school clinics to be illegal. The court holds that the establishment of clinics and the employment of nurses and dentists is so foreign to the powers exercised by school officials that such powers cannot be held in existence in the absence of language expressly conferring them.

An exception is made in the case of pupils in parental schools.

—Chillicothe, Tex. A Red Cross nurse and a nutrition specialist were employed recently to undertake a series of tests covering a period of one month.

—The school authorities and the daily newspaper of Nashua, N. H., have taken steps to remove malnutrition in the schools. All children who are habitually seven per cent or more underweight for their height are said to be suffering from malnutrition.

The daily newspaper offered space for a series of short articles to inform parents so that they might think and act intelligently on the subject. Summary tabulations of conditions in the schools were printed daily together with brief comments. Notices were sent to parents of children suffering from malnutrition and they were asked to read the statistics and remarks in the newspaper.

DURAND STEEL LOCKERS

These are the months when colds are most frequent and the importance of health is greatest.

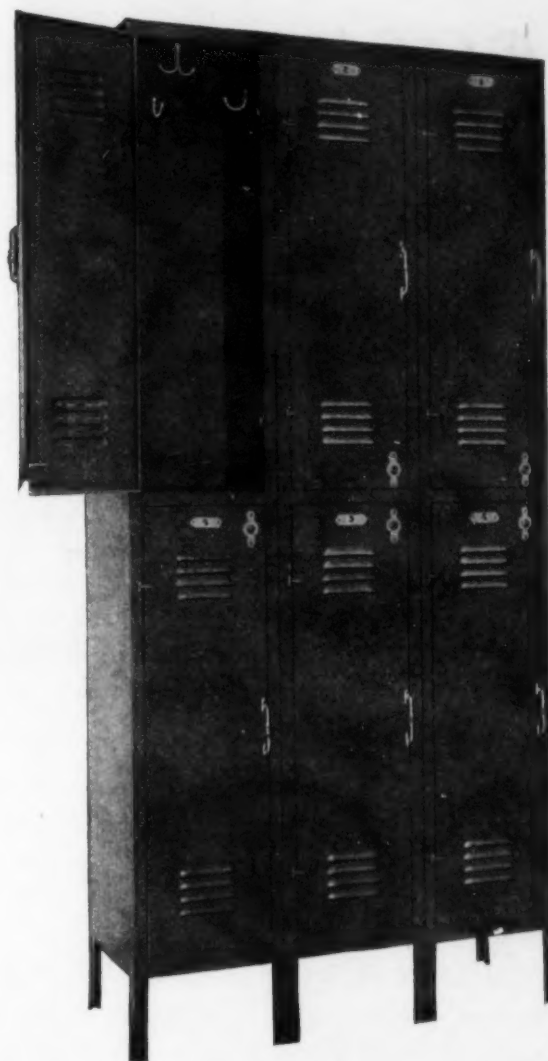
Durand Steel Lockers have a great deal to do with the prevention of contagion, as well as the safe-keeping of overcoats, umbrellas, rubbers, etc., the loss of which may be the cause of colds and more serious illness.

Durand Steel Lockers safeguard health as well as property.

DURAND STEEL LOCKER COMPANY

1521 Ft. Dearborn Bank Building
Chicago, Ill.

521 Park Row Building
New York City



NOW IS THE TIME

to plan your playground program for next spring.

ORDER YOUR EQUIPMENT NOW.

for Spring delivery, thus avoiding disappointments in receiving goods on time.

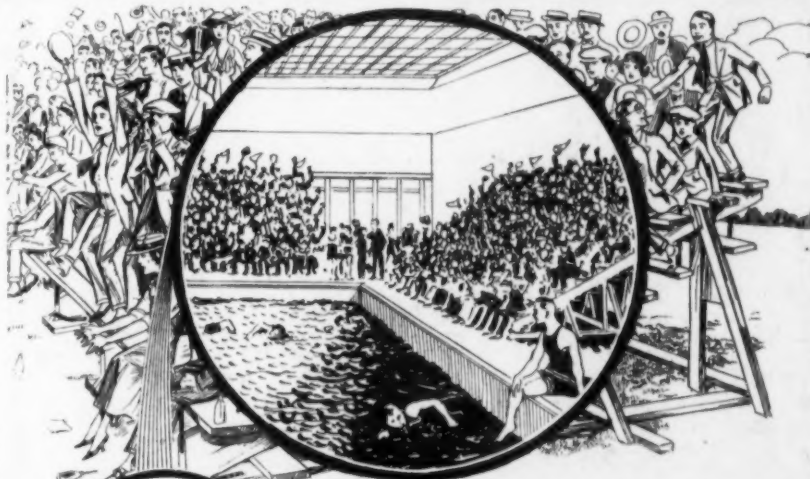
WE PROTECT YOU ON PRICES.

"EVERYTHING FOR THE PLAYGROUND."

WRITE FOR CATALOG NO. 5 TO-DAY.

HILL-STANDARD CO.

ANDERSON, IND.



Extra Seats Ready for any event

At indoor meets or field events, Knockdown Bleachers meet every emergency for quick satisfactory seating. They are "up for a day or to stay." Durable, heavily ironed and rigid, they are built to stand the wildest crowds year after year. The Cornell University, Elks' Club at Seattle, Brooklyn National League Park, Goodyear Tire & Rubber Company, and scores of universities, colleges, Y. M. C. A's, high schools, and industrial plants are among our satisfied customers.

Knockdown Bleachers come in sections 14 ft. long, 3 to 10 seats high. Sound lumber, painted one coat. Foot boards are below the seat boards; no clothes can be soiled. Will not mar fine floors. Store compactly and occupy little space. Extra seating at one event will pay for them. Write for particulars.

Leavitt Manufacturing Co.

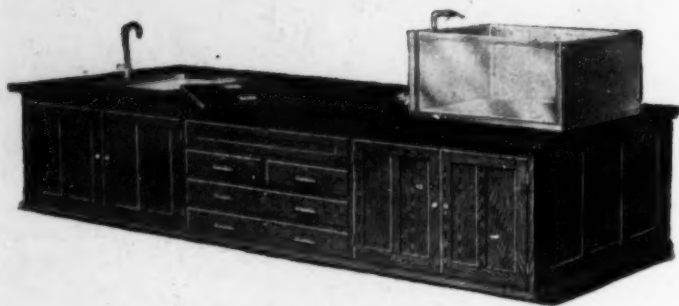
365 Griggs St., Urbana, Illinois.

KNOCKDOWN
TRADE MARK
BLEACHERS

"Up for a day
or to stay"

GOOD SCHOOLS

Demand the Best Laboratory Furniture



Biology Instructor's Desk, No. 1018.
Equipped with Aquarium.

You can't afford to compromise on Laboratory Furniture, particularly when America's Best costs but little more in initial investment. In the long wear and tear, it costs less.

Members of School Boards, Superintendents and Science Instructors all over North America will tell you that Kewaunee endures. Ask us to send you a list of users in your own state.

Educational Executives who are considering new equipment should have a copy of the Kewaunee Book. Just ask for it.

ADDRESS ALL INQUIRIES TO THE FACTORY AT KEWAUNEE.

Kewaunee Mfg. Co.
LABORATORY FURNITURE EXPERTS

101 Lincoln St.
KEWAUNEE, WIS.

Pacific Sales Division,
6th Floor, Metropolitan Bldg.,
Los Angeles, Calif.

Canadian Sales Division,
615 Yonge St.,
Toronto, Canada.

New York Office, 70 Fifth Avenue

Branch Offices:

Chicago Minneapolis Kansas City Atlanta Alexandria, La. Columbus
Little Rock Dallas Denver Spokane Oklahoma City Jackson



Kewaunee Sand Table, No. 2103.
A necessity in every Kindergarten Department.

This Is Our



Double Manual Training Bench No. 22

which is furnished with two Abernathy Rapid Acting Vises, and can be had with six drawers, four drawers, two drawers, or without drawers.

Manufactured by

C. Christiansen

2814 W. 26th ST.

CHICAGO ILL.



Book Case No. 182



Book Case No. 1



Teachers' Desk No. 53

For SERVICE and SATISFACTION

Concentrate on the "STANDARD" Line.

Sold by All Leading Distributors.

Manufactured by

STANDARD SCHOOL EQUIPMENT CO.

Incorporated

4462 LOUISVILLE AVE., LOUISVILLE, KENTUCKY

Makers of a Complete Line of Teachers' Desks and School Library Book Cases

THE HUDSON STUDY DESK



Patent applied for

Why have the top of a school desk adjust and not the seat?

We contend that by adjusting the desk only the correct posture cannot be obtained if the seat does not adjust — and the back too. The Hudson seat adjusts three inches (the top five inches) in the Large size and proportionately in the Medium and Small sizes. Besides the top adjusts to any position and the back adjusts vertically.



Patent applied for

NEW JERSEY SCHOOL FURNITURE CO.

TRENTON

::

NEW JERSEY

The oldest established school furniture factory in the country. Now 50 years.

THE SMITH-TOWNER BILL.

The Smith-Towner Bill, creating a Department of Education and providing federal aid to the states for the promotion of education, has been favorably reported by the House Committee on Education.

Before reporting the bill, the committee adopted several amendments by Congressman Towner, author of the bill. The first of these adapts the bill to the plan for a general reorganization of the executive departments by providing that the Bureau of Education shall be transferred at once to the Department of Education, and that such other boards, bureaus and branches of the government shall be later transferred to the new department as Congress may determine should be administered by it. This harmonizes the bill with the work of the Smoot-Reavis committee.

Another amendment removes all possible objection to the bill on the part of those who have feared that the bill would centralize control over the public schools in a Federal Department at Washington, by providing specifically that courses of study, plans and methods for carrying out the purposes and provisions of the act within a state shall be determined by state and local educational authorities. The Secretary of the Department is denied the right to exercise any authority whatever with respect to the administration of education within the states, his power being limited to seeing that appropriations for particular purposes shall be expended for the purposes for which they are appropriated by Congress.

STAY IN SCHOOL.

A "stay-in-school" campaign has been begun in New York City by a cooperating committee of interested civic organizations to aid the Department of Education in persuading children to return to school. It has been found that thousands have left school to seek work which does not exist and as a result are prone to wander about the streets. The purpose of the campaign is to prevent increased unemployment of junior workers, by making children of working age and their parents acquainted with the

industrial situation and with the dull prospect greeting any child who leaves school expecting to go to work.

It is urged that children of working age stay in school because of the obvious benefits accruing to them thru longer education or more special industrial training. The children in question are usually from 14 to 18 years of age. These are the years of adolescence when children are in need of careful supervision. The physical and mental instability of boys and girls at this time is marked and the advisability of letting them work at all is a question of dispute. Supervision of their needs is not easy even when they are still in school.

The unemployment problem reacts on children doubly, for many children already employed are thrown out of work, and children whose parents lose their positions are induced to leave school with the vain hope that they may be able to earn money. In either case, once out of school, they are reluctant to return, and no effort should be spared to counteract the influences which induce them to leave.

For those children who may have been forced to work because of economic pressure at home, the committee has arranged to provide industrial scholarships in order that they may receive further industrial training. These scholarships are distributed by the Vocational Guidance and Employment Service for Juniors, and they may be obtained by making application to the offices of the Service Bureau.

For children definitely out of school and also out of work, the committee has provided facilities during the day to furnish them industrial training during the period of unemployment, and recreation and meeting places within reach of the employment bureaus which try to place them. Both these activities lessen the difficulties of these children and lessen the dangers to them of an unemployment period.

To further the "stay-in-school" idea with children now in school, but thinking of withdrawing, the committee has secured the services of a number of qualified speakers. They meet with and address groups of children and emphasize the stay in school arguments already made to

the children by means of circulars distributed thruout the schools under the direction of the superintendent of schools.

Finally, it is the ultimate responsibility of the teachers and principals in the elementary schools to drive home the importance of this appeal for children to remain in school, and it is pointed out that too strong emphasis cannot be placed on the importance of keeping every child in school who might ordinarily drop out.

Among the organizations, which have cooperated with the Department of Education and the Vocational Guidance and Employment Service in the campaign are the New York Child Labor Committee, the Women's City Club, the Women's Municipal League, the Urban Club, the United Hebrew Charities, the United Neighborhood Houses, the Young Women's Christian Association, the Young Women's Hebrew Association, and the Public Education Association. Mr. George A. Hall, secretary of the Child Labor Committee, is chairman of the subcommittee in charge of this work.

NEWS OF SCHOOL OFFICIALS.

Mr. James Bonair has been reelected superintendent of school buildings at Pittsburgh, and Mr. Carl M. McKee, superintendent of supplies.

Mrs. Marian Kelly is the first woman to be chosen as president of the board of education at Niles, O.

Mr. Adam A. Stermer has been reelected for the twelfth time as clerk of the board of education at New Philadelphia, O.

Mr. Enoch E. Engdahl has been elected president and Mr. Robert A. Wilson secretary of the board at Spokane, Wash. Mr. Wilson succeeds E. A. Thomas who was with the board over 23 years.

Mr. Thomas Croston has been reelected clerk of the school board at Pawtucket, R. I.

Mr. John D. Cassell has been reelected superintendent of buildings, and Mr. Mahlon L. Savage superintendent of supplies, of the Philadelphia board of education.

Supt. Frank O. Draper of Pawtucket, R. I., has been reelected for the ensuing year.

Eclipse

None Ahead of Us
Few Can Equal Us

Eclipse



Eclipse Steel Sanitary Stationary Combination Desk
ECLIPSE SCHOOL FURNITURE IS GUARANTEED
IN MATERIAL, CONSTRUCTION AND FINISH

Catalog on Request

The Theodor Kundtz Company
CLEVELAND, OHIO

SALES OFFICES IN ALL PRINCIPAL CITIES

Heywood-Wakefield

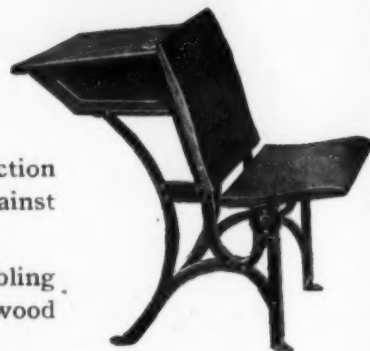
TRADE MARK

Indestructible Pressed Steel Combination Desk

Extra Heavy Gauge Steel
Standards, finished in Dull
Black Enamel, baked on at
High Temperature.

Noiseless, Spherical Friction
Hinge which stops against
Leather.

Novel and positive Assembling
Device which locks the wood
parts to the metal standards.



Descriptive Catalog of Heywood-Wakefield School Furniture on request.

HEYWOOD BROTHERS and WAKEFIELD COMPANY

Pioneer Manufacturers of Pressed Steel School Furniture

Adjustable Single Pedestal Desk with Nine Novel and Exclusive Features

Indestructible Pressed Steel Combination Desks,
Stationary and Adjustable Desk and Chair Sets,
Commercial Desks, Teachers' Desks and Chairs,
Tablet Arm Chairs, Assembly Hall and Opera
Chairs, Library Chairs, Cocoa Matting, Reed
and Rattan Furniture for the Rest Room

516-520 W. 34th St.,
New York, N. Y.
113-123 West Conway St.,
Baltimore, Md.
737-743 Howard St.,
San Francisco, Calif.

174 Portland St.,
Boston, Mass.
Wells and Carroll Sts.,
Buffalo, N. Y.
148-154 Tenth St.,
Portland, Ore.

244-254 S. 5th St.,
Philadelphia, Pa.
2653 Arlington St.,
Chicago, Ill.
211-217 East 6th St.,
Los Angeles, Calif.

For prompt service and satisfaction, we
solicit your inquiries on



SEMI STEEL SANITARY DESK

School Desks, Opera and Folding Chairs

Prompt shipment and
complete satisfaction guar-
anteed with every purchase



WILL NOT TIP
FORWARD



No. 70



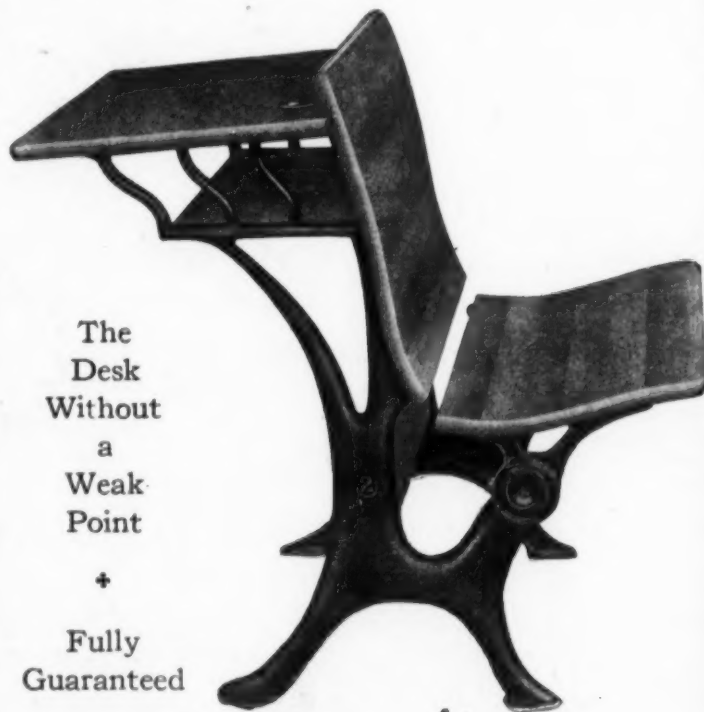
No. 242

WRITE FOR CATALOG

The Peabody School Furniture Co.
North Manchester, Ind.

The Jewel Sanitary School Desk

THE MOST SATISFACTORY FOR GENERAL USE



The
Desk
Without
a
Weak
Point

+
Fully
Guaranteed

Illustrated catalog and price list on request

Columbia School Equipment Works
MORRISON, ILLINOIS

REGISTERED
ECONOMY
U. S. PAT. OFFICE

ECONOMY Drawing Tables and Sectional Filing Cases

*Read what
a user
says:*

Only one of the many unsolicited testimonials that we are constantly receiving. The first paragraph indicates why we get so many repeat orders—the second paragraph how the repeat orders come in.

We design and manufacture Drawing Tables, Filing Cases and Drafting room furniture.

We are splendidly equipped to turn out "stock" orders as well as "specialties." We give our personal attention to every one of your needs. We have made a study of, and proved the ECONOMIC use of the ECONOMY furniture in the drafting room.

Write Today.



UNIVERSITY OF ILLINOIS
Urbana, Illinois
September 30, 1920

The Economy Drawing Table and Manufacturing Company
Adrian, Michigan

Gentlemen:-
I have just approved a voucher covering the cost of 50 drafting tables which you furnished the University of Illinois several days ago.

These tables have been put into immediate use, and a thorough inspection by us shows that in every detail they are up to the standard which we desire. I am very much pleased with the quality and workmanship shown by a thorough inspection of these tables. We are not at all surprised and pleased with the quality and workmanship shown by a thorough inspection of these tables. We are not at all surprised and pleased with the quality and workmanship shown by a thorough inspection of these tables.

Very truly yours,
H. H. Jordan
Head of the Department of General Engineering Drawing

THE ECONOMY DRAWING TABLE & MFG. CO., Adrian, Michigan

REGISTERED
ECONOMY
U. S. PAT. OFFICE

IT PROTECTS
THE USER

SCHOOL ATTENDANCE STATISTICS.

The Bureau of Education, Washington, has brought out some interesting studies in school attendance which it presents in graphic form. It presents (Chart XI) the percentage of non-resident pupils in large, small and medium-sized

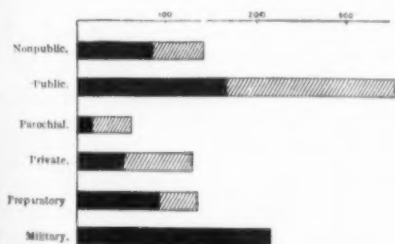


CHART VI.—Average enrollment of pupils in various types of schools. Dark sections indicate boys; shaded sections indicate girls.

schools, showing that the smaller schools carry the larger percentage.

Another study (Chart XIII), concerns itself with the relative percentages of experienced and inexperienced teachers. Here it is shown that the medium and smaller schools have more in-



CHART XXXII.—Shows graphically the facts of Table 61, namely, the average value (per school) of the equipment of the complete school plant, building and grounds.

BOYS 44.8%



CHART VII.—Distribution of boys and girls in the accredited public schools.

experienced teachers than the larger city schools. It demonstrates the tendency on the part of

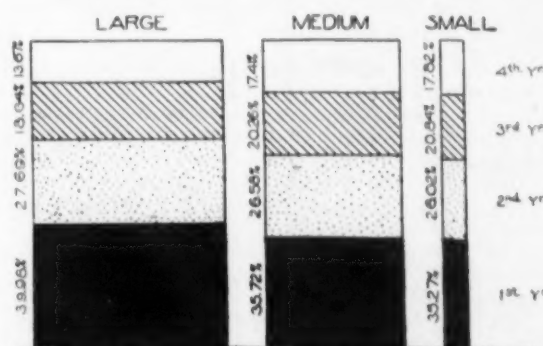


CHART VIII.—Distribution of pupils by class in the three types of public schools.

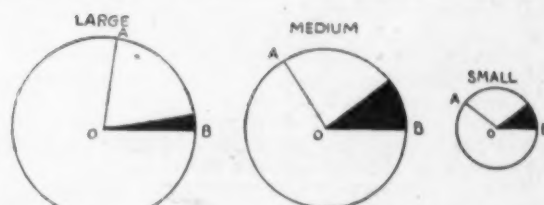


CHART XI.—Relative number of nonresident pupils attending the three types of schools. Total areas represent the total number of pupils, areas in the circles being in proportion to the number of pupils attending each type.

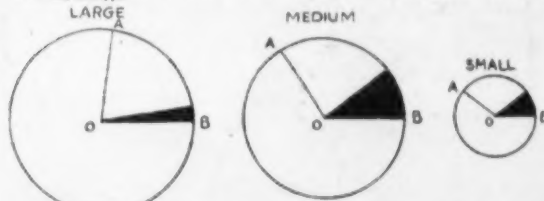


CHART XIII.—Shows graphically the relative number of teachers in the three types of schools, the numbers being the given system in 1900, and the numbers of new teachers who had had no previous teaching experience. The entire areas represent the total number of teachers. The areas A & B represent the number of new teachers. The dark areas represent the number of new inexperienced teachers.

teachers to seek the larger centers for economic and social reasons.

The average value per school plant in the several states is shown in Chart XXXII. The investment ranges highest in Ohio and lowest in Nebraska.

The studies made in school attendance from the standpoint of sex are instructive. Chart VI shows the relative attendance of boys and girls in the non-public, public, parochial, private, preparatory and military schools. The aggregate in the combined schools of boys and girls and the percentages of each is presented in Chart VII, while the distribution between large, medium and small schools is shown in Chart VIII.

Approximately \$10,000,000 have been requested of the Ohio state legislature by the trustees of five state-supported colleges and universities. The budget which is nearly \$1,200,000 more than that of last year, will provide \$6,000,000 for building construction work and \$4,000,000 for operating expenses.



SEE
OUR
EXHIBIT
AT
ATLANTIC
CITY



THE PRINCESS.

The Princess SANI-STEEL
CHAIR DESK

Queen Quality for the School Room

The strongest, most durable
chair desk ever built

Let us tell you more about it



with Curved Back, Saddle Seat, Plus and
Minus and Tilting Top Adjustment. No
Glue joints to come loose. As durable as
steel. It is made of steel.

Send for circular.

COLUMBIA SCHOOL SUPPLY CO.

INDIANAPOLIS, IND.

DEPARTMENT OF SUPERINTENDENCE MEETING.

The Department of Superintendence of the National Education Association, which will hold its annual meeting February 26 to March 3, 1921, at Atlantic City, N. J., will present an unusually strong program. An attendance of 8,000 leading educators is expected at the meeting.

One session is to be given over to a discussion of the probable future of education in the United States and the policies and programs needed to insure that future. Special addresses will be made by well-known educators in the country.

The Program.

Monday Morning, February 28.

The Great Problem in American Education—The Rural School, State Supt. Will C. Wood, Sacramento, Calif.; President-Elect Warren L. Harding, W. C. Bagley, Teachers College, New York City; Ralph Decker, Supt., Sussex Co., New Jersey; Elizabeth Kelly, Department of Education, Raleigh, N. C.; Ernest Burnham, State Normal School, Kalamazoo, Mich.

Monday Afternoon, February 28.

*Ideals and Accomplishments of the School System. I. Represent—*Supt. H. S. Weet, Rochester, N. Y.; Supt. R. J. Condon, Cincinnati, O.; Supt. David B. Corson, Newark, N. J.; Supt. Frank B. Cooper, Seattle, Wash., and Supt. Frank Cody, Detroit, Mich.

Monday Evening, February 28.

Address—Nicholas Murray Butler, President Columbia University, New York City.

Tuesday Morning, March 1.

*Best Use of the Superintendent's Time—*Supt. H. B. Wilson, Berkeley, Calif.; Supt. Charl O. Williams, Memphis, Tenn.; Supt. James H. Van Sickle, Springfield, Mass.; Supt. Charles S. Meek, Madison, Wis.; Supt. B. B. Jackson, Minneapolis, Minn., and Supt. James O. Engleman, Decatur, Ill.

Tuesday Afternoon, March 1.

*The Probable Future of Education in the United States—Its Policies and Programs—*Prof. Frank E. Spaulding, Yale University, New Haven, Conn.; Pres. Lotus D. Coffman, University of Minnesota, Minneapolis; President M. L.

Burton, University of Michigan, Ann Arbor; Supt. Henry Snyder, Jersey City, N. J.; Supt. John W. Withers, St. Louis, Mo., and President Robert J. Ale, State University, Orono, Me.

Tuesday Evening, March 1.

Address—Sir Auckland Geddes, Ambassador from Great Britain, Washington, D. C.

Address—H. M. Towner, Congressman from Iowa, Washington, D. C.

Wednesday Morning, March 2.

The Great Need of the Schools—Better Teaching, Supt. Susan M. Dorsey, Los Angeles, Calif.; Dean Charles H. Judd, Department of Education, University of Chicago; Pres. Walter A. Jessup, University of Iowa, Iowa City; Supt. Zenos E. Scott, Louisville, Ky., and Arthur W. Dunn, Bureau of Education, Washington, D. C.

Wednesday Afternoon, March 2.

Departmental Meetings for Cities of less than 50,000, Supt. Henry M. Maxson, Plainfield, N. J.; Cities of 50,000 to 250,000, Supt. Louis P. Benezet, Evansville, Ind.; Cities 250,000 to 450,000, Supt. J. M. Gwinn, New Orleans, La.; Cities of 450,000 and up, Supt. Wm. M. Davidson, Pittsburgh, Pa.

Wednesday Evening, March 2.

Address—Hon. P. P. Claxton, Commissioner of Education, Washington, D. C.

Thursday Morning, March 3.

How May the Public Understand What Service the School is Rendering the Community? State Supt. Thomas E. Finegan, Harrisburg, Pa.; Chancellor Edward C. Elliott, University of Montana, Missoula.

PROGRAM ANNOUNCED.

The Department of School Administration of the National Education Association will hold two sessions during the convention of the Department of Superintendence on March 2nd and March 3rd. Dr. Geo. W. Gerwig, who has prepared the program, will preside over the first session.

The second session on March 3rd will be a round table devoted to problems of school building standardization.

The first topic of the meeting will be "Safety to Life in Schoolhouse Planning." The discussion will be opened by Mr. H. W. Forster, Chair-

man of the Committee on Safety to Life, National Fire Protection Association.

A talk with lantern slides will be given by Mr. J. Albert Robinson, Providence, R. I., Chairman of the Committee on Fire Protection, American Society of Safety Engineers.

The discussion will then be taken up by S. A. Challman, State Inspector of Buildings and Sanitation, Department of Education, St. Paul, Minn.; William George Bruce, American School Board Journal, Milwaukee, Wis., and Frank Irving Cooper, Architect, Boston, Mass.

The second part of the program will be a general discussion on the topic of "The Comprehensive School Building." An illustrated address by Mr. F. E. Clerk, Superintendent of Schools, Winchester, Va., will open the discussion. Speakers to take up specific aspects of the problem include James O. Betelle, Architect, Newark, N. J.; Dwight H. Perkins, Architect, Chicago, Ill.; William B. Ittner, Architect, St. Louis, Mo.; C. B. J. Snyder, Architect, Board of Education, New York; Allen P. Keith, Superintendent of Schools, New Bedford, Mass.; S. O. Hartwell, Superintendent of Schools, St. Paul, Minn.; James M. Glass, Principal, Washington Junior High School, Rochester, N. Y., and E. C. Hartwell, Superintendent of Schools, Buffalo, N. Y.

The discussion of the meeting will be summed up by Dr. A. E. Winship, Editor of the Journal of Education, Boston, Mass.

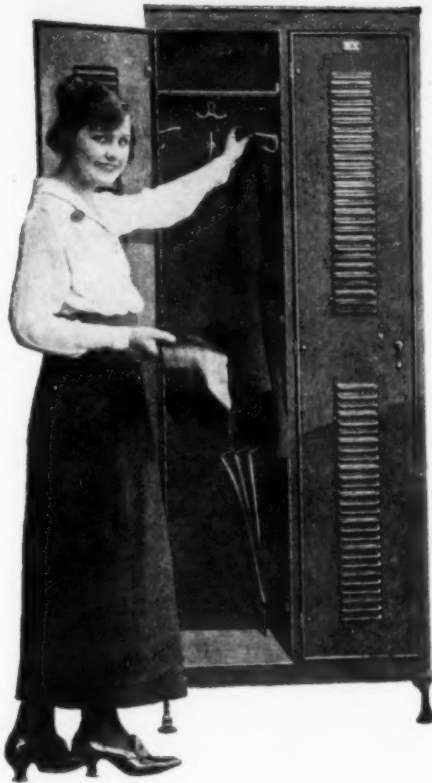
OPPOSE CONSOLIDATION OF SCHOOLS.

The Pennsylvania State Grange has declared in favor of the retention of the little red school-house.

The grange is willing to have schools consolidated in localities where conditions are favorable and the people want it, but is opposed to the plan of Dr. Finegan, where conditions are unfavorable and the people do not want it. The grange is thus in favor of local option as it were, on the public school question.

What the grange really does desire is to have the schools open at least eleven months in the year. All young children are to attend in summer, when the weather is favorable, and in winter the older children shall attend, who in the summer can be engaged in useful farm work.

Buy Your Lockers on a Quality Basis



Twelve Points of Superiority:

1. Special Locker Stock. Made throughout of heavy sheet steel for strength and permanence. Pickled, re-rolled and patent leveled to insure the smooth surface essential to a high grade finish.

2. Frame Construction. Built on a solid channeled and welded frame to afford the strongest possible support and hold the locker square and true, so that doors always fit and locks always engage.

3. Two-Coat Finish. Finished in two coats of enamel baked on to prevent rust and resist deterioration, as well as to provide handsome, permanent finish.

The other nine points will be published in subsequent advertisements. Send for interesting book picturing all twelve points in detail.

As an experienced purchaser of school supplies you know that economy rests largely on quality; buy quality and service at reasonable cost and you follow the sound policy.

Medart Locker quality is unquestioned. Their utility has been proved during many years by the schools of Dallas, Tex. (5000 lockers), Denver, Colo. (6750 lockers), Minneapolis, Minn. (4400 lockers), and many others. Medart Lockers are economical because their first cost spreads over so long a period of useful service.

MEDART STEEL LOCKERS

The product of many years' experience in building Steel Lockers, Shelving, Bins, Racks and kindred products. Furnished in standard flexible units; easily installed. Readily shifted and rearranged when extensions or changes are desirable.

Shipped promptly—exactly when promised.

Our Engineering Service is at your disposal in planning the most economical locker arrangements. This service is gratis and places you under no obligation. Write, stating your needs—we will promptly send helpful literature and data.

FRED MEDART MFG. CO.

Potomac and De Kalb Sts., St. Louis, Mo.
New York, 52 Vanderbilt Avenue
San Francisco, Rialto Building

Safeguard against faulty and extravagant arrangements of equipment by letting us submit plans showing modern arrangements of standard furniture to meet your conditions.

NO OBLIGATION
NO CHARGE

E. H. SHELDON & COMPANY

Oldest and largest producers of
MANUAL TRAINING COOKING
SEWING DRAWING ART
SCIENCE LABORATORY FURNITURE

(Catalogs furnished gladly)

MUSKEGON, MICHIGAN



DOMESTIC SCIENCE TABLE No. 402

LEONARD PETERSON & CO., Inc.

PIONEER DESIGNERS AND MANUFACTURERS OF

High Grade Laboratory Furniture

For Chemistry, Physics, Biology, Physiography,
Domestic Science, Domestic Art, and Manual Training



This design is very convenient where a large number of students are to be accommodated in one laboratory, as it provides ample cupboard and drawer space for six classes of eight students each. Superior quality, strength, solidity, and durability are built right into our furniture. Every detail is well worked out. Our furniture has met with the approval of hundreds of educators throughout the United States, Canada, Porto Rico, and China.

Send for a copy of our Catalog No. 10

Leonard Peterson & Co., Inc.

Manufacturers of Guaranteed Laboratory Furniture

1222-1234 Fullerton Avenue, Chicago, Ill.

NEW YORK CITY
Grand Central Palace

Branch Offices:

GRAND RAPIDS, MICH.
Murray Building

WILSON FOLDING PARTITIONS



The Report Card Tells

Did you ever stop to consider the effect of improper window shading and ventilation?

Consider their effect on

The mental and bodily development of children.

The Health and efficiency of both teachers and pupils.

Close, stuffy rooms, devitalized air, excessive heat; either dark, or glaring light from the sun—you cannot blame children for becoming nervous, fidgety and irritable, and for teacher having headaches.

Aerolux Ventilating Window Shades keep out the sun's heat and glare, yet admit a soft diffused light and fresh air without a draft. Healthful, and helpful to study. Easy to adjust. Hang straight. Cheapest in the end. Unexcelled in beauty. Investigate.

Send for full information.

THE AEROSHADE COMPANY

2198 OAKLAND AVE.

WAUKESHA, WIS.

Manufacturers of Aerolux Porch Shades for the home.

AEROLUX

VENTILATING REG. U.S. PAT. OFF.

WINDOW SHADES

Scenery

Asbestos curtains,
Velour curtains

and

Stage scenery for your Auditorium
stage. Special, Historic, Scenic
or Architectural paintings
for front drop curtains.

Twenty years of experience in equip-
ping High Schools has placed us in a
position to know the particular re-
quirements for your stage.

Write us for further information or
request call from our representative

Twin City Scenic Company

2819 Nicollet Avenue
Minneapolis, Minnesota

Eastern Office:
301 Broadway Market Building,
Detroit, Michigan

The
affirmed
Court,
not ex
school
The
ber of
years
passed
non-res
patrons
Several
and the
for fina
affirmed
Mr. E
of the
Ohio, h
by a d
Upper
ing at
mer wa
elapsed
meeting
salary
tendent
the cou
work du
Judge
Illinois,
out of
over to
prevent
The cou
as well
"a very
Judge
out of
have rel
the cont
when th
perinten
pointmer
TEAC
The S
has rece
ment inf



Wayne Dependability

THRU thirteen years of national usage, Wayne School Cars have proved their dependability. Low in initial cost—economical in operation—reliable in performance—their installation has insured a definitely successful transportation service.

It is not surprising therefore that to school officials in every state in the Union Wayne transportation has become synonymous with successful school consolidation.

Complete costs of installing Wayne school transportation as suited to varied requirements will be gladly furnished on request.

The Wayne Works

Since 1868

Richmond—Indiana.

LEGAL NOTES.

The Supreme Court of Pennsylvania has affirmed a decision of the Westmoreland County Court, in which it holds that school boards may not exclude non-resident students from high school on the payment of tuition.

The case has been fought in the courts a number of times during the past few years. Several years ago, when the Greensburg school board passed a resolution to exclude any and all non-resident pupils from the high school, several patrons secured an injunction from the court. Several hearings were held in the local court, and the case was appealed to the higher court for final decision. The court in its decision, affirmed the finding of the county court.

Mr. Edgar M. Crawford, school superintendent of the southern district of Hancock County, Ohio, has been deprived of his position and pay by a decision of the Common Pleas Court of Upper Sandusky. The court held that the meeting at which Crawford was employed last summer was illegal, because sufficient time had not elapsed between the notice and the date of the meeting. Crawford who was employed at a salary of \$3,600, has been acting as superintendent since the beginning of school. Under the court's ruling he may not be paid for his work during the past few months.

Judge Scanlan of the Cook County Court of Illinois, has taken the Chicago school board case out of the state attorney's hands and turned it over to the attorney general, in an endeavor to prevent the dismissal of the contempt charges. The court characterized the attempt at dismissal, as well as the ousting of Angus R. Shannon as "a very serious mistake of judgment."

Judge Scanlan's action prevents the carrying out of the state attorney's plan which would have relieved the ten members of the board from the contempt sentences which were given them when they ousted Dr. Charles Chadsey as superintendent after the court had ruled his appointment legal.

TEACHERS' SALARIES IN MISSOURI.

The State Education Department of Missouri has recently issued a circular giving some pertinent information relating to the salaries paid in

the cities and towns of the state. The study which is quite extensive, comprises a list of about 453 cities. It shows the average salaries paid in high and grade schools during the years 1919 and 1920, revealing a wide range of salaries.

Of the 453 cities listed in 1919, 278 paid less than \$1,000 to high school teachers, 21 paid \$1,000, and 123 paid more than \$1,000. In 1920, 52 cities paid less than \$1,000, ten paid \$1,000 and 366 paid more than \$1,000. The smallest average salary paid in 1919 was \$540, the largest was \$2,750, and the median was \$1,080. In 1920, the smallest average salary was \$630, the largest was \$2,250, and the median was \$810.

In the grade schools in 1919, 362 cities paid less than \$1,000, one paid \$1,000 and five paid more than \$1,000. In 1920, 419 cities paid less than \$1,000, three paid \$1,000, and fifteen paid more than \$1,000. The smallest average salary paid in 1919 was \$300, the largest was \$2,700, and the median was \$1,200. In 1920, the smallest average salary was \$426, the largest was \$2,340, and the median was \$958.

Attached to this article are tables showing (1) the average paid in certain salary groups for high and elementary teachers in 1919 and 1920; (2) the number of cities paying relatively high average salaries, and (3) the number of cities paying small average salaries. In the first table, salaries ranging from \$500 to \$2,000 were selected; the second ranged from \$900 to \$1,000 for grade teachers and \$1,200 upward for high school teachers, and in the third table salaries below \$800 and below \$600 were taken.

Table I. A Study of Salaries by Groups.

| Average | Salaries | No. | Cities | Kind of School |
|---------|----------|------|--------|----------------|
| | | 1919 | 1920 | |
| \$2,000 | | 1 | | High |
| | | 1 | | Elementary |
| | | | 1 | Elementary |
| 900 | | 139 | 30 | High |
| | | 2 | 35 | Elementary |
| 800 | | 86 | 6 | High |
| | | 3 | 61 | Elementary |
| 700 | | 33 | 2 | High |
| | | 23 | 111 | Elementary |

| | | | |
|-----|-----|-----|------------|
| 600 | 10 | 3 | High |
| | 96 | 123 | Elementary |
| 500 | 5 | 0 | High |
| | 155 | 64 | Elementary |

Table II. Cities Paying High Average Salaries.

| Average Salaries | No. Cities | Kind of School | |
|------------------|------------|----------------|------------|
| | 1919 | 1920 | |
| \$1,200 or more | 16 | 225 | High |
| 900-1,000 | 10 | 55 | Elementary |

Table III. Cities Paying Small Average Salaries.

| Average Salaries | No. Cities | Kind of School | |
|------------------|------------|----------------|------------|
| | 1919 | 1920 | |
| Below \$800 | 32 | 5 | High |
| Below 600 | 277 | 73 | Elementary |

A study of salaries paid teachers in Little Rock, Ark., shows that the total yearly salaries for all teachers amounted to \$501,145 in 1920, as against \$322,911 in 1919. The total number of teachers employed in 1920 was 371, and the total number in 1919 was 343.

The average salaries for senior high school teachers amounted to \$1,844 in 1920, and \$1,200 in 1919. The average salaries for junior high school teachers amounted to \$3,144 in 1920, and \$2,051 in 1919. For grammar school teachers they amounted to \$1,274 in 1920, and \$882 in 1919.

—New York, N. Y. The board of education has recently approved a communication of President Prall, suggesting ways and means of effecting a more economical administration of the school system. Mr. Prall recommends that a survey be conducted and that the committee on school survey take up the matter again with the corporation counsel. He comments on the large number of special classes and the relatively small number of pupils to a teacher in high schools, showing that there is room for reorganization which will make for economy.

It has been recommended that the board of superintendents take up the matter of organizing high, intermediate and elementary schools. There are many thousands of children in the first year of high school scattered in high school annexes, and there are thousands of other children in the ninth year in elementary schools.

Revised Editions of Aldine Reading

THE revision of the Aldine Readers has been made in the light of the most modern, most up-to-date psychology and pedagogy, retaining all the best features of previous editions

and adding new, attractive, scientific features which cannot fail to appeal to the discriminating, progressive teacher. The series is now complete through the first six years under the following titles:

LEARNING TO READ—A Manual for Teachers using the Primer and Books One and Two. REVISED EDITION, 1918.



PRIMER, Revised Edition, 1916. BOOK ONE, Revised Edition, 1916. BOOK TWO, Revised Edition, 1918. BOOK THREE, Revised Edition, 1918, Pupil's Edition. BOOK FOUR, Revised Edition, 1919, Pupil's Edition. BOOK FIVE, Revised Edition, 1920, Pupil's Edition. BOOK SIX, Revised Edition, 1920, Pupil's Edition. BOOK THREE, Revised Edition, 1918, Teacher's Edition. BOOK FOUR, Revised Edition, 1919, Teacher's Edition. BOOK FIVE, Revised Edition, 1920, Teacher's Edition. BOOK SIX, Revised Edition, 1920, Teacher's Edition.

The Revised Manual is more extended and comprehensive than the old edition, and takes up in more detail the lessons in Book One and Book Two, giving suggestions which are invaluable to the experienced teacher and indispensable to the inexperienced.

While the Manual stops with Book Two, the

Teacher's Editions of Books Three, Four, Five and Six contain many instructions, hints, and suggestions to the teacher as to the presentation and development of each lesson in the books, which themselves contain a valuable new feature in the questions and suggestions to pupils, under the title, "Learning to Study and Think."

73 Fifth Avenue, New York

NEWSON & COMPANY 623 South Wabash Avenue, Chicago

PUBLICATIONS.

—*A Course of Study in Handwriting for Elementary Schools.* Bulletin No. 8, 1920, of the Department of Education, of the State of Massachusetts. To teach handwriting successfully it is necessary that the teacher have as much knowledge of the subject, and as much skill and preparation, as for any other subject. The pamphlet discusses fundamental principles, position, movement, materials, teaching forms, and special instructions for teachers. It is emphasized that the teaching is only successful when the pupil carries out in his written work, the same principles which have been taught in the lessons.

—*Ultra-Violet Rays in Water Purification.* Reprint No. 576, December, 1919, United States Public Health Service, Treasury Department, Washington. The present pamphlet has been issued in response to a number of requests regarding the sterilization of water and it includes abstracts of articles on the purification of water by ultra-violet rays.

—*Rural Hygiene.* L. L. Lumsden, Surgeon of the United States Public Health Service. Reprint No. 570, November, 1919, United States Public Health Service, Treasury Department, Washington. The pamphlet is a reprint of a lecture delivered in 1919 at the Academy of Medicine Building in New York City, in opening the conference on rural hygiene. It discusses principles of hygiene, the need of advancement, importance of rural hygiene in national health, and the United States Public Health plan for rural health work.

—*Ozone in Ventilation.* Reprint No. 591, April, 1920, United States Public Health Service, Treasury Department, Washington. It discusses the use of ozone, ozone machines and public health, hygiene and the use of ozone, value of ozone in ventilation, and experiments in ozone ventilation.

—*Report of the Special Commission on Teachers' Salaries for the State of Massachusetts.* Payson Smith, Brookline, chairman of the Commission. The teacher shortage manifested itself with the closing of schools, the employment of

teachers with less than the usual professional qualifications and a decrease in the enrollment of teacher-training schools. The study of teacher-supply, salaries and qualifications made by the Massachusetts Commission shows that the state is in much better condition than it was at first supposed. An effort was also made to determine to what extent teachers have left the schools and whether those employed to fill vacancies are less qualified than those who left. The findings show that about 9.2 per cent of the teachers terminated their employment, 17 per cent left to teach in other states, and about 20 per cent went into other employment than teaching. Among the subjects discussed are Supply of teachers, Decreasing Enrollment in Normal Schools, Deficiency of Qualified Teachers, Salaries and Qualifications of Teachers, and Length of Service of Teachers. The pamphlet contains a model salary schedule, a rating form for teachers, and outlines of typical salary laws of the several states.

—*Commemoration of Public Education and the Seventy-fifth Anniversary of the Appointment of the Commissioner of Rhode Island.* W. E. Ranger, Commissioner. This pamphlet was prepared by Dr. Carroll as a souvenir of the fiftieth anniversary of the creation of the State Board of Education. It gives an outline of the development of the public education system, its advance in legislation, its improvement in practice, its expansion in responsibility, and the service of the board of education, with sketches of the members and of the commissioners.

—*Further Use of Standard Tests and Scales as a Basis for a Cooperative Research Plan.* Extension Series No. 37, May, 1920. University of North Carolina, Chapel Hill. The subject tables in reading, arithmetic, spelling and reasoning present the scores made by the several systems in the different tests grade by grade. The tables give a cross section of the quality of work done in each subject throughout the system.

—*Motion Pictures of the United States Department of Agriculture.* Circular No. 114, Contribution of the Division of Publications, July, 1920. The booklet has been prepared to bring about a wider and more effective use of the department's

films and to tell some helpful facts to workers unacquainted with the mechanics of motion pictures. It discusses uses of films, film circuits, exhibition, safe handling and care of films. There is a good list of films and a dictionary of motion picture terms.

—*Plans and Suggestions for New Mexico Rural School Buildings.* Issued by Jonathan H. Wagner, State Superintendent, Santa Fe, N. Mex. The pamphlet was prepared under the direction of Teachers' College, Columbia University, and includes the rules governing the sanitation of public buildings as provided by the State Board of Health. There are typical plans for model rural schools, a combination recitation and laboratory room for agriculture, a farm shop, vocational home economics room, model manual training shop, model kitchen and layout for home economics cottage.

—*Public Education in Delaware.* A report to the public school commission of Delaware. Issued by the General Education Board, 61 Broadway, New York, N. Y. The pamphlet represents the report of the Survey conducted by the General Education Board for the Delaware Survey Commission in compliance with the law passed in 1917. The report discusses, the people and industries, the present school system, the state board of education, district school committees and boards of education, the teachers, the schools and their work, enrollment and attendance, and finance. The final chapter includes the recommendations of the board for the improvement of the school system in the direction of an enlarged state board, better financial support, higher standards for teaching, better distribution of state funds, and provision for free high school education for every child in the state. There are several tables of statistics and an appendix containing an outline of the provisions of the school code.

Discontinue Publications.

The Western Teacher and the American Journal of Education, published for some years by S. Y. Gillan, have been discontinued. Mr. Gillan has liquidated the unexpired subscriptions on the basis of the amount still due each individual subscriber.

The Tendency in Commercial Education

is toward a more comprehensive training and away from the **exclusive** teaching of the mechanics and technique of business at the expense of fundamentals.

The books listed below are in keeping with these present-day tendencies.

Business Organization and Administration, by J. Anton de Haas, Professor of Foreign Trade, New York University.

A vivid picture of the whole field of modern business. Brought down to the level of secondary school pupils. Comprehensive and teachable. \$1.60

An introduction to Economics, by Graham A. Laing, Professor of Economics, University of Arizona.

Prepared especially for high school pupils. Simple, teachable, and comprehensive. Successful from the start. \$1.40

Office Training for Stenographers, by Rupert P. SoRelle (text and exercises).

A thorough treatment of office routine. Everything stenographers should know. Used in hundreds of schools, both public and private. Text \$1.25
Exercises .75

The Gregg Publishing Company

New York Chicago Boston San Francisco London

Horace Mann Readers

BEST BY TEST. Proof on request. Children quickly develop the power to think and read independently from the beginning. Carefully graded to fit natural progress. Made up of inspiring literature. Stimulate love of good reading. Teachers get remarkable results with little effort. Every efficient teaching medium and device utilized and fully explained in the Teacher's Manuals which outline the lessons day by day. Nation-wide adoption.

Woodburn and Moran's Histories

Introduction to American History

(America's European Beginnings)

A boldly and simply written story of the background of American History whose compelling interest rivets the pupils' attention. Reviews the world's great civilizations, emphasizing their influence upon our own age and country down to 1607. Profusely and beautifully illustrated. Pronouncing lists and teacher's helps. For sixth grade.

Elementary American History and Government

(After-the-War Edition)

Includes 1920 Presidential election. Full treatment of the War and problems of the New Reconstruction. New emphasis on matters of international importance whose significance has been changed by recent events. New maps. New illustrations. For seventh and eighth years.

Alexander's New Spelling Book

"The only speller that makes the spelling lesson interesting." Embodies the best features approved by recent research. Practical word-list, regular systematic reviews, dictionary drills, Ayres Scale, "100 Demons," etc. Its inspiring newness makes spelling a vital unit in social education. Complete or in parts.

Alexander-Dewey Arithmetic Series

Ready soon.

LONGMANS, GREEN & CO.

449 Fourth Avenue, New York

2457 Prairie Avenue, Chicago

O'Toole's Practical English for New Americans

THE LATEST AND BEST IN AN UP-TO-DATE RESULT - GETTING TEXT FOR TEACHING ENGLISH TO FOREIGNERS

Miss Clara B. Springsteed, Assistant Supervisor of Immigrant Education in New York State, and Miss Caroline A. Whipple, Supervisor of Factory Classes, say of this book:

"Miss O'Toole's book, PRACTICAL ENGLISH, is a distinct contribution to effective work in Adult Immigrant Education. It is practical, definite, and concrete. On pages 1-56 there are invaluable suggestions to teachers. The twenty devices given there are stimulating and are a first aid in overcoming monotony in conduct of a class.

The directions for factory classes emphasize steps that must be taken in organizing and conducting factory classes, if they are to be permanent and successful. We have taken pleasure in recommending the book to many teachers."

D. C. HEATH & CO.

Boston

New York

Chicago

J. B. LIPPINCOTT COMPANY

ANNOUNCES

THE DEARBORN GROUP INTELLIGENCE TESTS

SERIES II

together with TEACHER'S MANUAL, for Grades 4 to 9 inclusive.

THE HORN AND ASHBAUGH SPELLER

The result of the greatest and most extensive piece of research in the history of education.

TEACHERS' MANUALS

One for each of the three Lennes and Jenkins' APPLIED ARITHMETICS.

Write for particulars

J. B. LIPPINCOTT COMPANY

2126 Prairie Avenue
Chicago, Ill.

E. Washington Square
Philadelphia, Pa.

Elementary Lessons In Everyday English

By
EMMA MILLER BOLENIUS
Author of Everyday English Composition

This new book is based systematically on the Project Method and is the first book on the teaching of Elementary English to utilize this plan.

Descriptive circulars and price lists on request. Your correspondence will have prompt attention.

New York
Cincinnati
Chicago
Boston
Atlanta

American Book Company
330 EAST 22ND STREET
CHICAGO, ILL.

Penmanship and Spelling Correlated

MUTUAL ADVANTAGES ARE QUICKLY OBSERVED when the PALMER METHOD PENMANSHIP LESSON IS FOLLOWED IMMEDIATELY by THE PALMER METHOD SPELLING LESSON. THE PALMER METHOD WRITING LESSON conducted by a qualified Palmer Method teacher teaches pupils how to use muscular movement in writing words, and the PALMER METHOD SPELLING LESSON may be made the connecting link between muscular movement drill and automatic muscular movement handwriting.

Spelling through Penmanship
Penmanship through Spelling

The Palmer Method Spellers contain lists of words which were thoroly tested by New York City teachers. The plan of presentation is modern and thoroly practical. THE WORDS IN THE PALMER METHOD SPELLERS ARE ALL IN PALMER METHOD PENMANSHIP, thus serving a double purpose—FIRST, enabling pupils to visualize quickly and efficiently the words in the kind of penmanship in which they will be expected to write them. This plan increases greatly efficiency in spelling. SECOND, giving ample material for auxiliary penmanship lessons, thus BRIDGING QUICKLY AND EFFECTIVELY THE CHASM BETWEEN MOVEMENT DRILL AND MOVEMENT WRITING.

Eight Spelling Books—one for each grade.

The A. N. Palmer Company is continuing its plan of teaching free, to teachers in whose classes Palmer Method Penmanship has been adopted, the mechanics and pedagogy of practical penmanship. We maintain in the field a large force of expert teachers of penmanship whose services are free to all school systems in which the Palmer Method of Business Writing has been adopted.

THE A. N. PALMER COMPANY
623 So. Wabash Ave., Chicago, Ill.
30 Irving Place, New York, N. Y. Pittock Building, Portland, Ore.

IMPORTANT ANNOUNCEMENT

An Extended Revision of Rocheleau's Geography of
COMMERCE AND INDUSTRY
Has Just Been Made

STATEMENT TO THOSE NOW USING THIS TEXT BOOK

The subject matter of a book like the "Geography of Commerce and Industry," made up largely of information and statistics regarding the production and consumption of the world, must be kept as nearly up to date as possible.

We have just published a complete revised edition brought up to date and with many new illustrations.

South America, which now means so much more to us commercially than ever before, is given special attention in the way of illustrations.

You will want this new edition. Over one hundred changes have been made.

TO THOSE NOT YET USING THIS VOLUME

Do Your Pupils Know

1. What proportion of the land and of the earth is inhabitable?
2. How wheat, corn, cotton and other great farm products are grown, marketed, and used?
3. How gold, silver, iron, coal and petroleum are mined and shipped, and their respective relations to the industrial and commercial life of the United States and of the world?
4. Of the worth and dignity of labor?
5. Why some products are more valuable than others?
6. What proportion of the world's supply of wheat, cotton, cattle, hogs, lumber, iron, copper, coal and manufactures are produced by United States?
7. How a bank does business? What a clearing house is? How remittances are made, and the relation of money to commerce and industry?
8. Why the great cities of the world are located where they are?

These and many other questions of equal importance are clearly and fully answered in

"GEOGRAPHY OF COMMERCE AND INDUSTRY"
Over 100 Illustrations. 8vo. 440 pages. Cloth. Mailing Price, \$1.25

YOUR PUPILS SHOULD BE SUPPLIED
WITH COPIES OF THIS POPULAR TEXT

EDUCATIONAL PUBLISHING COMPANY

2457 Prairie Avenue CHICAGO 50 Bromfield Street BOSTON 18 E. 17th Street NEW YORK 717 Market Street SAN FRANCISCO

Representative Publications

OF
Hinds, Hayden & Eldredge

AN ELEMENTARY GENERAL SCIENCE

By Daniel Russell Hodgdon

This book has been prepared for the Junior High School and the First Years of High School.

Unlike every other book on the subject the material of the Elementary General Science is organized around one central theme,—the home.

JUNIOR GENERAL SCIENCE

For the grades.
By Daniel Russell Hodgdon

This book embodies the same features and follows the same logical arrangement of topics as the Elementary General Science but is simplified for use in the grades.

THE MORRISON OUTLINE MAPS

An aid in the teaching of Geography and History.

(Send for sample set)

A BRIEF COMMERCIAL GEOGRAPHY

By Davis and Hughes

A short comprehensive course in this subject designed for the eighth grade.

THE CHILDREN'S METHOD READERS

Another new, beautiful and delightful Children's Reading Series. Four Books are now ready. Suited to the first and second grades.

ASSEMBLY SONGS FOR EVERY OCCASION

Selected and Arranged by George H. Gartlan

The contents of this song book include six sections devoted to:
1. Patriotic Songs. 2. Songs for Every Occasion. 3. Community Songs. 4. American Songs and Choruses. 5. Hymns. 6. Part Songs and Choruses.

(Send for sample section)

HINDS, HAYDEN & ELDREDGE, INC.

PUBLISHERS
NEW YORK PHILADELPHIA
1024 SO. WABASH AVE.
CHICAGO, ILLINOIS.

EXHIBIT AND DEMONSTRATION OF STANDARD TESTS OF INTELLIGENCE AND ACHIEVEMENT

at the Meeting of the N. E. A. at Atlantic City, February 24 to March 3, 1921

Headquarters for World Book Company representatives will be at Hotel Traymore; other agents for the House will be found at the Marlborough-Blenheim and the Chalfonte.

Booths 100-101, Young's Million Dollar Pier—the Convention Hall. (Also for the meeting of the National Society of Vocational Education)

World Book Company Exhibit. The principal display of group intelligence and achievement tests will be that of World Book Company, whom the Journal of Education speaks of as "easily the leading publishing house in the country in the field of tests and measurements." A double booth (Nos. 100 and 101) directly opposite the speakers' platform and near the doors leading into the auditorium of Young's Million Dollar Pier, will be in charge of experts.

THE HAGGERTY READING EXAMINATION:

SIGMA 3, for grades 5 to 12, will be shown here for the first time, also the **HUDELSON ENGLISH COMPOSITION SCALE**, and the **WILKINS' PROGNOSIS TEST IN MODERN LANGUAGES**. The 1921 printings of all the other tests we publish will be shown too.

N. E. A. Exhibit.

Booths Nos. 90 and 91 at the same place will be conducted by the National Education Association and the Institute for Public Science. Here will be shown all of our tests, as well as all others available; also school records, including the **McALLISTER LOOSE-LEAF RECORD SYSTEM**, which follows the recommendation of the N. E. A. Committee.

List of Tests.

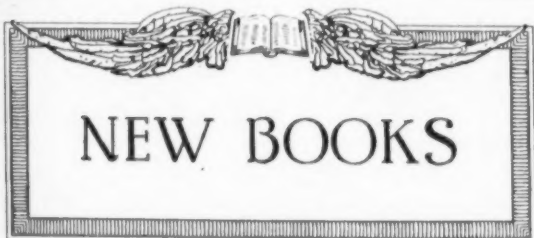
We expect to distribute at this meeting a valuable new booklet giving the names of all tests in use, the author, and publisher—classified by subjects. We will be glad to send a copy to you if you are unable to attend this important meeting.



WORLD BOOK COMPANY

Yonkers-on-Hudson, New York
2126 Prairie Avenue, Chicago 313 South Preston Street, Dallas
Also Atlanta and Manila

Our exhibits will also show our full line of textbooks, including many new publications for the grades, junior high schools, and high schools.



Nature Study and Agriculture.

By Charles C. Schmidt, M. S., Professor of Education, University of North Dakota, 459 pages. Illustrated. Cloth bound. Published by D. C. Heath & Co., New York, Chicago.

The author proceeds from the thought that agriculture should be made a nature study from the standpoint of the practical and the actual. He unifies the commonly accepted division of the two studies into one for use both in the school and the home.

The plan of the book provides treatment of plants, insects, poultry and wild birds, animals and general farm work and management. Seeds and their germination are fully discussed. Flowers, vegetables, fruits and grains become basic studies. Soil analyses is considered.

Weeds, insects and plant diseases are adequately dealt with and the student is taught how to combat them. Considerable space is given to birds and the care of domestic animals.

The book is liberally illustrated.

Studies in Experimental Education.

By Bird T. Baldwin, Ph. D., and others. 75 pages, Paper Cover. Published by The Johns Hopkins University, Baltimore, Md.

This volume contains studies in physical measurements, research tests in arithmetic, handwriting, reading and spelling. There is also a discussion by several experts on the application of the Yerkes-Bridges point scale and the standard revision of the Binet scale for measuring intelligence. The Starch test for speed and comprehension and the Thorndike visual vocabulary test as well as the Trabue completion test come under consideration.

The several papers are amply provided with tables and diagrams.

Barry Lyndon.

By William Makepeace Thackeray. Edited by Charles E. Rhodes. Cloth, 432 pages. Gregg Publishing Co., New York, Chicago, Boston.

Barry Lyndon has never taken a place in popular favor with Thackeray's four great works, *Vanity Fair*, *Pendennis*, *Esmond* and the *Newcomes*, because it lacks that truthfulness in delineating human life and that sympathetic touch which characterize these books. True it is a masterpiece of the literature of roguery, but the reader is not always certain that the author is satirizing the foibles of society, of well fixed institutions, of religion and ethics, of law, etc., and that he is not more than half in sympathy with his chief character. The book is ably edited but does not appeal to us as desirable for high school use.

The Passing Legions.

By George Buchanan Fife. Cloth, 369 pages. The Macmillan Company, New York, N. Y.

No story of the great world war will be complete without a record of the services rendered by the American Red Cross. The activities of several of the commissions sent out under American auspices have been told in published volumes.

The present volume deals with the Red Cross staff that served in Great Britain. This staff was denied the privilege of being at the front, but its story is nevertheless full of exhilaration and interest. A million American soldiers passed thru England on their way to and from the war front.

While the author has recorded the activities of the Red Cross itself with great fidelity, he also presents many incidents and circumstances which are an essential part of the war itself.

The Prince and the Pauper.

By Mark Twain. Cloth, 281 pages. Harper & Brothers, New York, N. Y.

This volume is an addition to the Harper's Modern Classics under which the publishers have already brought out a number of works by Twain, Hardy, Howell, Deland and others. The

present text is ever old and ever new and will always prove a delight to American readers.

It is accompanied with an introduction by Arthur Hobson Quinn who briefly tells the story of Mark Twain's life and provides a discussion on his writings.

Selected Writings of Abraham Lincoln.

Edited by Albert Bushnell Hart. Cloth, 345 pages. Gregg Publishing Co., New York, Chicago, Boston.

The table of contents of this volume enumerates some biographic essays on Lincoln and many selections from Lincoln's writings. Nothing can be said in comment of Lincoln's immortal writings. These speak for themselves. The reviewer can only note the manner of their presentation. Here the publishers deserve praise for the enterprise. The book is well edited, well printed and bound.

The Schoolhousing Series.

By George D. Strayer, N. L. Engelhardt and Frank W. Hart. Form I, 32 pages; form II, 32 pages; form III, 40 pages; form V, 8 pages. Pages, 8 1/2" x 11". C. F. Williams & Son, publishers, Albany, N. Y.

The present four forms of the "schoolhousing series" have been developed by Professor Hart as guides to architects, school boards and superintendents of schools in developing and checking preliminary plans and specifications for schoolhouses. They are arranged as follows:

Form I—Outline of educational requirements to be compiled by school authorities for architects, preliminary to making sketches.

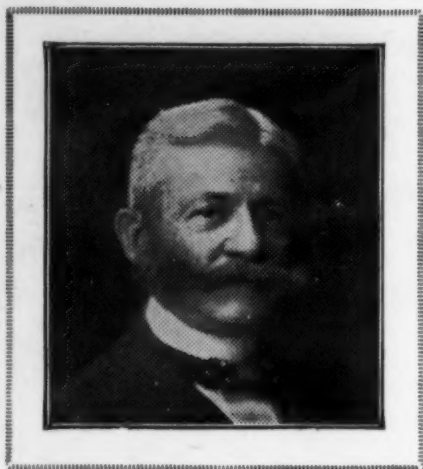
Form II—Outline for memoranda of facts to be developed by architect and school board for use by former in making working drawings and specifications.

Form III—Checking chart and score card for use of school authorities and architects in examining plans and specifications.

Form V—Outline of conditions for architectural competitions.

It is notorious that many schoolhouses are planned in a haphazard fashion and without consideration of many vital factors that contribute to the success or failure of a project. To pre-

Progress Born of Experience



THE perfection of the Holden Book Cover was reached by the wise activities of the Holden Company, which anticipated the needs of the schools for a Book Cover that would **WEAR LIKE LEATHER**, adjust easily without implements or gumming and that would make free textbooks **LAST TWICE AS LONG AS USUAL**.

THE HOLDEN PATENT BOOK COVER COMPANY

MILES C. HOLDEN, President

SPRINGFIELD, MASSACHUSETTS

vent hit-or-miss procedure and to present in an orderly form all the essential details that must be passed upon, if not necessarily incorporated, in every schoolhouse is the purpose of the present forms. They begin at the very beginning of the "type" of building and convey thru the financing, planning and construction down to the last detail for accepting the structure from the contractors.

Of the four present forms Numbers 1 and 2 are most valuable and contain the most useful outlines the least items which can be criticized. Form 3 offers a scoring plan which in some details is arbitrary and so inclusive that no building could possibly have a one hundred per cent score without many contradictory and extremely wasteful facilities. Form 5 is generally acceptable, but will hardly pass a captious committee of the American Institute of Architects without some amendments and additions.

The forms should be welcomed and used by school authorities. Buildings which are built with their assistance cannot but be bettered thru the consideration of all details; how much trouble and how many omissions and errors will be avoided cannot be calculated.

Grace Harlowe Overseas.

Jessie Graham Flower, A. M. Illustrated. Cloth, 265 pages. Henry Attemus Co., Philadelphia.

A romantic story of a girl who entered the American transport service in France.

Harper's Atlas of American History.

By Dixon Ryan Fox. Cloth, 180 pages, illustrated. Harper & Brothers, New York.

One-third of this volume consists of maps, the other two-thirds of studies and discussions. The various stages in American history are presented in graphic form. All told there are 120 maps, many of them printed in color. Primarily it is a reference work. Many facts, which would involve laborious effort if sought in texts, are here revealed at a glance.

Teaching Home Economics.

By Anna M. Cooley, B. S., Cora M. Winchell, B. S., Wilhelmina H. Spahr, M. A., and Josephine A. Marshall, B. S. Cloth, xii and 555 pages. Macmillan Company, New York.

Four nationally known teachers have collaborated in preparing this comprehensive work on the theory and practice of teaching home economics. While we disagree with the authors in their statements of some of the bases for some of the social and educational purposes of teaching household arts, we must commend the very practical suggestions for organizing courses, planning lessons, selecting personnel, materials and equipment. The book reflects the present tendency of making every school subject all-inclusive and of grasping every new idea as socially and educationally significant.

Child's Own English Book.

By Alice E. Ball. Book I, 176 pages. Cloth, 12mo., 176 pages. J. B. Lippincott Co., Philadelphia.

Something new in grammars? Impossible, says the teacher. Still this little volume is decidedly new and fresh and should meet a hearty welcome from teachers in the middle grades.

The author approaches the subject of grammar from the standpoint of child interest and presents grammatical terminology by means of stories, games and exercises which involve elements of competition. She has frankly taken a leaf out of the book of experience in arithmetic and spelling and has adapted successful principles and methods to teaching the parts of speech, the growth of simple sentences, punctuation and common errors. She uses concrete materials which the child has met in his experience at work, play and study to carry along the child's use of language to the abstract principles which make up grammar.

The stories are well chosen and the games can be carried on in any classroom. The book is well illustrated and carefully printed.

PUBLICATIONS.

Annual Report of the Supply Commissioner, St. Louis, Mo., for the year ending June, 1920. E. M. Brown, commissioner. The report discusses the increase in the cost of supplies, delivery service, stock rooms, delivery of new stock, lunch rooms, book bindery, transportation, and cost per pupil for various supplies.

Annual Report of the Business Agent of the

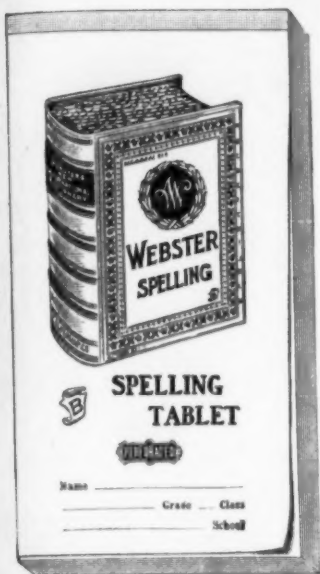
Boston Public Schools, for the financial year ending January, 1921. Wm. T. Keough, business agent. The report offers a statement of the business activities of Boston, giving in particular the money available for taxes, rents and taxes, amount and cost of supplies and incidentals, cost of administration, supervision and general charges, and a standard report of the financial statistics.

A Summary of Juvenile-Court Legislation in the United States. By Sophonisba P. Breckenridge and Helen R. Jeter. Children's Bureau, U. S. Department of Labor, Washington. The pamphlet discusses court jurisdiction, preliminary procedure, preliminary investigation, the hearing, disposition of case, special care for the sick and feeble-minded, continuation jurisdiction, organization of the court, construction and purpose of the law.

Myers Mental Measure. By Caroline E. Myers and Capt. Garry C. Myers, Recruit Educational Center, Camp Upton, N. Y. The measure is scientifically constructed and elaborately checked by the Stanford Revision of the Binet Test on several hundred children. It aids the administrator, the teacher, the employer and the employee. It measures intelligence in the first grade as well as in any other grades.

The Eyesight of School Children. By J. H. Berkowitz. Bulletin No. 65, 1919, U. S. Bureau of Education, Washington. This pamphlet sets forth the nature and extent of defective vision in school children; the preventable causes of defect and deterioration under control of the school; the effective means that have been taken to improve such conditions and the methods and facilities for remedying the defects. Very complete appendices are provided on the different phases of the subject.

A Graphic Method for Presenting Comparative Cost Analyses. H. R. Bonner, Statistician, U. S. Bureau of Education. Reprinted from the quarterly publications of the American Statistical Association. The pamphlet has been prepared in response to a demand for a method of unit-cost analysis which will show graphically how much money is being spent for various purposes, and whether the expenditures are high or low.



The Webster Series of School Tablets

"SERVICE AND SATISFACTION"

Best known of all the trademarked, uniform priced, school series.

Coast to coast sales since eighteen hundred and ninety-eight.

Guaranteed quality of all paper stock used. The very best for the price asked. Standardized covers on all numbers.

Writing Paper Tablets. Ruled and Unruled. Pencil Paper Tablets.

Penmanship Practice Tablets.

Shorthand Note Books.

Composition Books. Note Books. Memorandum Note Books.

Examination, Typewriter, Theme and Test Tablets.

Spelling Blanks. Sketch Books. Primary Tablets. Drawing Books.

Removable Leaves, Quadrille, Marginal Lines,

Wide Ruled, Narrow Ruled, Special Ruled, Printed Forms,

Permanently Bound and Perforated, Punched Marginal Holes,

Illuminated Covers.

Trademarked Design.



ASK US FOR DETAILS.



J. C. BLAIR COMPANY, MANUFACTURING STATIONERS, HUNTINGDON, PA.

ANNOUNCING THE

Midway Readers

A series of Story Readers for the development of SILENT READING in the intermediate grades

By

Sophia A. Miller
Teacher, New York City
and

Dr. James L. Hughes
Former Chief Inspector of Schools, Toronto
Author of "Teaching to Read"

The aim of the series:

1. To bridge the gap between the fairy story and folk lore of the primary grades and the formal classics of the grammar school; and to create in the minds of the children a literary atmosphere such as will aid in the interpretation of the classics in the grammar grades.
2. To put into the hands of the pupils of the intermediate grades material of ethical value for character building.
3. To furnish attractive material organized in a form that is usable and interesting, for the development of SILENT READING.

Book One - Fourth Grade
Book Two - Fifth Grade
Book Three - Sixth Grade

THE A. S. BARNES COMPANY

Laidlaw Brothers Chicago New York

Invaluable Aid to School Buyers

Subscribe NOW for a copy of the 1921 EDUCATIONAL RED BOOK.

The forthcoming number will be the most valuable school buyers' guide ever issued. An itemized broadening of the textbook classification is one of its important new features.

The RED BOOK gives the foremost sources of practically everything in the line of equipment, supplies, etc., applicable to the schools.

No school authority charged with the purchase of articles and materials for his schools should be without a copy.

Price \$1.00

Subscribe Now!

Also publishers and distributors of Strayer-Engelhardt school record cards, forms and books; school cost accounting system; school payroll system; Stock Record, Teachers' Pension Record, Teachers' Salary Record, Teachers' Experience Record, Textbook Record.

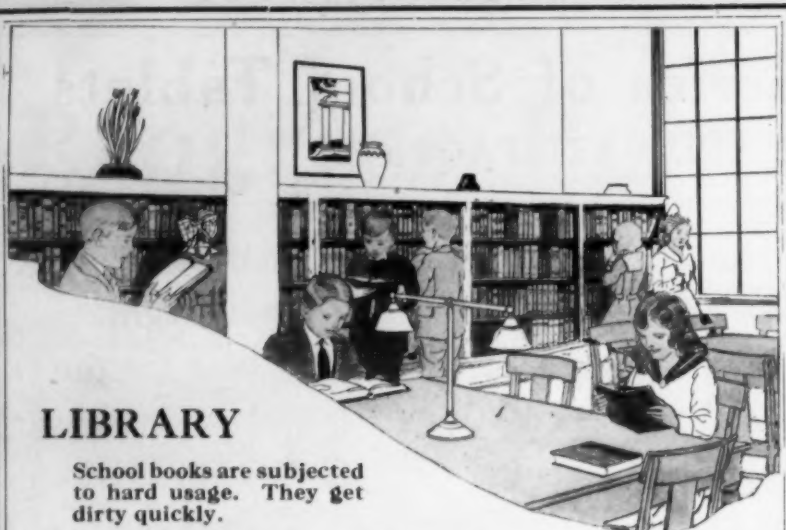
SEND FOR SAMPLES.

C.F. Williams & Son, Inc.

Fred A. Williams, Treas.

36 Beaver Street

Albany, N. Y.



LIBRARY

School books are subjected to hard usage. They get dirty quickly.

If they are bound in Genuine Keratol, they can be washed as easily as you wash your hands. Just a little soap, water and a rag, and the Keratol-bound book is as clean and fresh looking as the day it was put on the shelves.

Genuine Keratol is germproof, stainproof, waterproof and will not crack or scuff. For lasting economy, Genuine Keratol has no equal as a binding material.

The Newark Public Library has for years used Keratol exclusively with complete satisfaction.

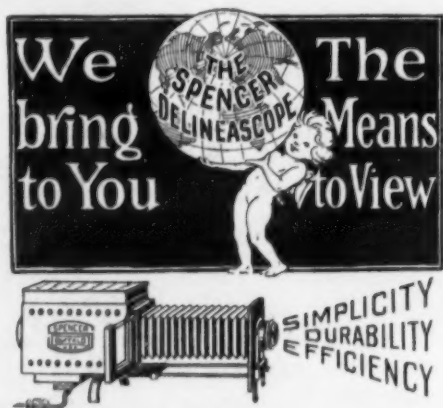
To those concerned with the purchase of school supplies, we will gladly mail samples of Keratol and further information on request.

Specify the Genuine

THE KERATOL CO.

NEWARK, N. J.

KERATOL



Spencer Delineascopes

THE IDEAL STEREOPTICONS FOR

PROJECTION OF PICTURES

POST CARDS, MAPS, READING MATTER, LIVING MATERIAL, OPAQUE OBJECTS, AS WELL AS LANTERN SLIDES.

They have incorporated in them many new, original and unique features, making them as far ahead of the old stereopticons as the automobile is of the wheelbarrow.

Five Models. Prices

\$49.00 to \$185.00

Discount to Schools

Send for Catalog K-11

SPENCER LENS COMPANY

BUFFALO, N. Y.



Manufacturers of MICROSCOPES, MICROTOMES, DELINEASCOPES, DISSECTING INSTRUMENTS, OPTICAL GLASS, SCIENTIFIC APPARATUS, ETC.



STEGER

The most valuable piano in the world

THE Spirit of Music finds its most beautiful and harmonious expression through instruments of fine musical quality. That is why hundreds of Musical

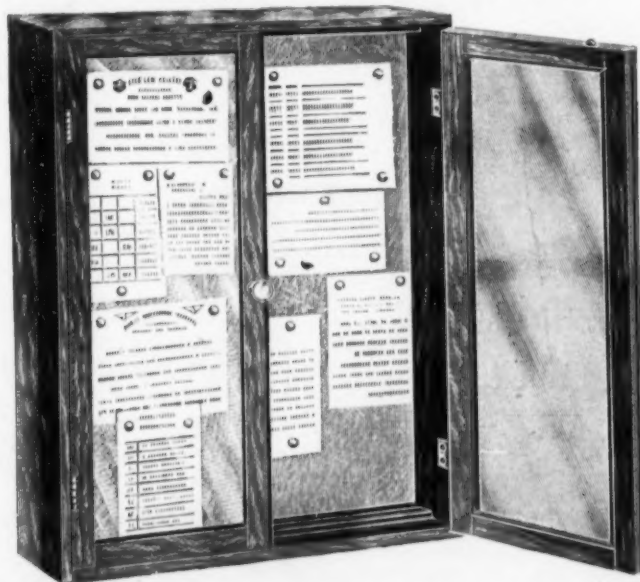
Conservatories, Schools, Colleges and Academies have equipped their piano-rooms with the wonderful Steger—the most valuable piano in the world from an artistic standpoint.

STEGER & SONS PIANO MANUFACTURING COMPANY
Factories at Steger, Ill. Founded by John V. Steger, 1879. Steger Bldg., Chicago.

If it's a Steger—it's the finest reproducing phonograph in the world.

EUREKA CORK-FELT BULLETIN BOARDS

FOR SCHOOL, STORE AND OFFICE



THE UP-TO-DATE AND MOST DEPENDABLE BOARD FOR SCHOOL USE

PANELS OF ANY SIZE READY TO PUT IN PLACE
PRICES AND SAMPLES UPON REQUEST.

SUPERLATIVE AND EXAGGERATED CLAIMS HAVE LOST FAVOR. WE BELIEVE IN FRANKNESS, CONSERVATISM AND TRUTH.

PADDOCK CORK COMPANY

1209-17 DE KALB AVE.
BROOKLYN, N. Y.

MAKERS OF THE UNUSUAL IN CORK.

You Are Invited

During the N. E. A. Convention at Atlantic City you are cordially invited to visit our exhibit of Laboratory Furniture in Booths 115 to 118. Make our space your Headquarters.

Kewaunee Mfg. Co.
LABORATORY FURNITURE EXPERTS

101 LINCOLN STREET

KEWAUNEE, WIS.

C. G. CAMPBELL, General Manager

Practical Marking of School Work of Pupils (Continued from Page 62)

This leaves two divisions on each side of the average group yet to be determined. Here again we may expect to find as many below average as above it. These groups are then fairly well established. They will probably run around 20 per cent for each. Educators and investigators differ on the exact per cent that ought to be fixed as a basis for each group. Since it is not expected that each class will conform exactly to any ideal that may be set up, it does not matter if there is some difference of opinion on the number that should be assigned to each division. For our use it was decided that the ideal for each group should be: F and A, 4 per cent each; D and B, 20 per cent each; and C, 52 per cent.

Special emphasis was laid on the fact that teachers must not arbitrarily group the class in these divisions—that it might easily happen that there would be no failures and no A's in a class. However, the above grouping is a reasonable expectation and teachers should be careful not to place too many pupils in any one of the divisions.

The test of any experiment is how it actually works out in practice, and naturally we were curious to see how teachers would really work out the new system. Report cards are given out at the end of each six weeks' period, and the average of the grades of the three periods is taken as the semester grade. No attempt was made to tabulate the grades for the six weeks periods, but the grades for both semesters were collected and compared.

The grades during the first semester were subject to more variation than those of the second semester. Some of the markings were rather

amusing. For example, all of the A grades in the seventh grade geography were given in one class. Seven A's were given in third grade reading—five of them in one room—by one teacher. One building had no A's, etc.

For the purposes of comparison certain grades were grouped together in tabulating the teachers' marks. Table I shows the percentage of grades given in the various groups during the first semester. Table II gives the percentage of grades in each division for the second semester.

Table I.

A denotes superior work.

| Grades | A | B | C | D | F |
|------------------|-----|-------|-------|-------|------|
| 1 to 3..... | 3— | 20 | 58— | 16.5 | 2.3 |
| 4 & 5..... | 2— | 21.1+ | 54.5 | 21.2+ | 1+ |
| 6 & 7..... | 1.6 | 21.1+ | 50— | 22.7 | 4— |
| 8 & 9..... | 9.7 | 22 | 37.1 | 22.3 | 8.9 |
| 10, 11 & 12..... | 9.8 | 19 — | 36.3+ | 25 + | 9.6+ |
| Total | 4— | 21 + | 50 — | 21 + | 4+ |

Table II.

| Grades | A | B | C | D | F |
|------------------|-----|------|------|------|------|
| 1 to 3..... | 1.2 | 14.7 | 56.6 | 21.4 | 5.6 |
| 4 & 5..... | 7 | 17.5 | 55.4 | 21.1 | 5.1 |
| 6 & 7..... | 4 | 13.4 | 56.7 | 25 | 4.2 |
| 8 & 9..... | 4.9 | 20.3 | 37 | 26.6 | 11.1 |
| 10, 11 & 12..... | 5.9 | 19.4 | 39.3 | 28.6 | 6.6 |
| Total | 1.9 | 16.4 | 51.7 | 23.8 | 6.1 |

It is interesting to see how various groups of teachers vary in the giving of school marks. From these tables it seems quite evident that the grade teachers as a group arrive more nearly to the standard than high school teachers. It is an interesting question whether this difference is really a difference in the work of the pupils or whether it is a difference in the marking of teachers in the grades and in the high school.

A study of the two tables will show that the marks given to the pupils in the first seven grades in both semesters follow the standard very closely and that there was little difference

between the percentages of the first and second semester. In the eighth and ninth grades the variation was more marked. For example, in the first semester the A's were 9.7 per cent and the failures 8.9 per cent, while the C's were only 3.7 per cent. There was a little improvement in these grades for the second semester. The A's were 4.9 per cent, but the failures ran a little higher, 11.1 per cent. The percentage of C's remained the same but the percentage of D's increased. Just why these pupils should not do as well the second semester as they did the first is hard to understand. The marks in the tenth, eleventh and twelfth grades correspond quite closely to the marks in the eighth and ninth. In the first semester the A's were 9.8 per cent and the failures 9.6 per cent. Both of these were reduced materially the second semester. The percentage of C's seem low in both semesters, while the percentage of D's is high for both semesters.

Standards Worth While.

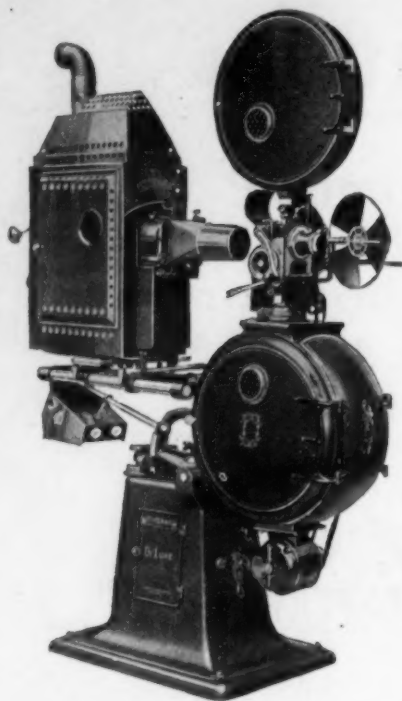
It will be noticed that the percentage of the marks for the school as a whole for the first semester correspond almost exactly with the standard set up. This seems to be a rather remarkable coincidence. The marks for the second semester seem just a little lower all thru the system. The percentage of A's is decreased while the percentage of F's is increased. The same thing happened with the B's and D's. The percentage of B's is low while the percentage of D's is high.

It is not expected or desired that there will be absolute uniformity in marking the work of pupils in any school system. Manifestly, with any considerable number of teachers, this would be impossible. On the other hand it does seem

MOTIOGRAPH

MOTION PICTURE MACHINES

Machines
Ranging
in price
from
\$400.00
to
\$550.00



Fully
Guaranteed
for
one year
against
defect and
wear.

MOTIOGRAPH'S simplicity, ease of operation, perfect definition of picture together with its non-wear-out gears, perfect cut sprockets, and exceptional wearing qualities

MAKE IT THE SCHOOLS' FAVORITE PROJECTOR!

Write for literature

THE ENTERPRISE OPTICAL MFG. COMPANY

566 W. RANDOLPH ST.,
CHICAGO, ILL.

Ford Educational Library

Educational Motion Pictures

founded by
Henry Ford

IS NOW READY

for the use of every

**Classroom; School House; College; University;
Institution and Organization**

IN THE WORLD

Prepared and Edited by Prominent
educational specialists, who are
experts in Visual Instruction.

Price; \$100 a year for 40 Films

One film for each week of the School year
For 50¢ a day - 5 days a week

Synopsis of films, and complete information on request

Fitzpatrick & McElroy
202 South State Street
CHICAGO

Sole Representatives

Ford Motion Picture Laboratories

advisable to have some standard by which all the teachers of one school system are expected to mark the work of pupils. If a standard is set up teachers will at least have an ideal toward which they may work and each one can easily tell how nearly she is approaching that ideal each time she gives out marks to indicate the progress her pupils are making.

In the judgment of the writer it is worth while to set up some standard so that teachers may know what is a reasonable expectation in the distribution of grades. If some such standard is set up toward which all may work it is evident that a much nearer approach will be made toward a reasonable uniformity and fairness in the marking of the school work of pupils.

The Eyesight of School Children (Concluded from Page 50)

even tho arranged in the most satisfactory manner, are of themselves a light-reducing element. This, of course, is unavoidable. Since at the present time the dark blackboard must be accepted as a necessary part of classroom equipment, the needful thing is to utilize it to the best advantage. It has become almost an obsession with educators that maximum of blackboard surface must be provided in every classroom, and they place blackboards on every possible wall space where no other necessary equipment will be interfered with.

"The most serious violation of eye hygiene is the placing of a blackboard beneath a window or between two windows. This error is by no means uncommon, as several of the illustrations here reproduced indicate.

"Deterioration of blackboard surfaces is another common eye hygiene evil. Particularly in the case of slate blackboards it will be found that the surface becomes streaked and chipped,

so that in those instances where this deterioration has progressed a good deal the writing is difficult to read, often entirely illegible. Whatever material be used for blackboards, whether slate or otherwise, the prime requisites are that the surface be smooth, that it be dull and of a very dark gray tone bordering on black of uniform shade thruout. The extent to which these conditions are impaired in blackboards that have been used for some time may be indicated by the following summary of a survey made by the writer, covering 187 blackboards in 67 classrooms. Of these 187 blackboards, 83 were of shade so light, due mostly to the wearing off of the top finish and the absorption of chalk, that white chalk writing was barely legible from the center of the classrooms and in a large number of rooms entirely invisible from the rear. The surfaces of 72 among these 187 blackboards were variously cracked and chipped in such a manner that even, easy writing on them was impossible."

SCHOOL LAW AND LEGISLATION. Recent Decisions.

The publication by the state superintendent of public instruction of an "Arbor and Bird Day Book," and "A Bulletin on Home Economics," is held by a recent decision of a Kentucky court not authorized by Kentucky St. No. 4389 directing the superintendent to make biennial report on the common schools and "such other facts, statistics and information as may be deemed of interest to be known." Vansant vs. Commonwealth, 224 S. W. 367, Ky.

An Iowa court has decided that the selection of a site for a school building within the school district is entrusted to the discretion of the school board, subject only to review by appeal

to the county superintendent and to the superintendent of public instruction, and courts cannot review such action of the school officers. Hufford vs. Herrold, 179 N. W. 53, Iowa.

An employee of a county superintendent, who was holding a teachers' institute in school building, has no greater rights therein than the superintendent has against the school district, but is a mere invitee, and the district is not liable for injuries to the employee resulting from defective condition of the elevator shaft. Smith vs. Seattle School District No. 1, 191 P. 858, Wash.

A Georgia court has decided that a contract of employment, made with the board of public education as a teacher in a particular school under the board's jurisdiction for the ensuing year, is subject to an existing rule of the board that the committee on teachers may transfer any teacher from one school to another within the board's jurisdiction in view of its power under Laws 1865-66, p. 79, Underwood vs. Board of Public Education for City of Savannah and Chatham County, 104 S. E. 90, Ga.

—Installation of Automatic and Open Sprinkler Equipments. Regulations of the National Board of Fire Underwriters recommended by the National Fire Protection Association. The rules cover the general details of a sprinkler equipment including location, spacing, pipe sizes, feed mains and risers, valves and fittings, alarm system, dry-pipe system and fittings, water supplies and fire department connections. Plans should be drawn to an indicated scale, with sectional elevations of the buildings, essential features of construction, size, location and direction of joists, timbers and other structural members. Information should be obtained from the underwriters' laboratories relative to standard makes of sprinklers, alarm and dry-pipe valves, indicator posts and hydrants.



© K. V. Co. Shooting an Oil Well.

The Picture
Puts
INTEREST
and
EAGERNESS
into the
Pupil's Daily
Work.

Every one knows the advantage of SEEING over any other method of learning.

The KEYSTONE SYSTEM of Stereographs and Lantern Slides enables the pupil to VISUALIZE EACH DAY'S LESSON.

Complete co-ordination with daily text made possible by a TEACHERS' GUIDE, fully indexed.

*Demonstrations and Further
Information on Request.*

KEYSTONE VIEW CO., INC.
DEPT. S
MEADVILLE, PENNA.

Victor Portable Classroom Stereopticons



Model 2-I with tripod complete including mazda lamp (any voltage) and all connections\$62.00

Model 2-A with tripod same as Model 2-I with the exception of the Victor high-power acetylene lamp replacing the mazda lamp for use where electric current is not available\$56.00

Victor Patented Featherweight Standard Slides
are superior to all others

Special Trial Terms to Educators
Catalogues mailed upon request
Manufactured and Guaranteed by

Victor Animatograph Company
141 Victor Building Davenport, Iowa

Concentration



It is difficult, by the spoken word, to get the undivided attention of all students. It is easy to get complete concentration on a lecture when words are supplemented by illustrations projected with a

BAUSCH & LOMB BALOPTICON The Perfect Stereopticon

Balopticons project slides, opaque objects or both with remarkable ease of operation. Photographs, post cards, specimens, illustrations, maps, etc., are clearly shown by the dependable, even and safe light of the new gas-filled Mazda lamp.

BAUSCH & LOMB OPTICAL CO.

551 ST. PAUL ST., ROCHESTER, N. Y.

New York Washington Chicago San Francisco London

Leading American Makers of Photographic Lenses, Microscopes, Projection-Apparatus (Balopticons), Ophthalmic Lenses and Instruments, Photomicrographic Apparatus, Range-Finders and Gun-Sights for Army and Navy, Searchlight Reflectors, Stereo-Prism Binoculars, Magnifiers and other high-grade Optical Products.



Lesson of the Vacant Space

1—Impression—Incompleteness

2—Emotional Reaction

Desire to have space filled

3—Without Realization of Desire

Vacant space in mind
Mental sluggishness

"No impression—no expression"

4—With Partial Realization of Desire

Sketch in vacant space a bird, a tree, a house, a line, or even a dot and

Ideas rise into "Dome of Consciousness"

5—With Full Realization of Desire

Fill hundreds of such spaces with views so rich in educational content that thousands of concepts are supplied and Mental activity, reactions and self-expression result

Underwood's "World Visualized for the Classroom" is a 600-set, or a 1000-set, of stereographs, or lantern slides, made from negatives, selected from the largest collection of educational subjects in the world; is classified under all heads that can be taught visually; is indexed and filed so that topic and material are easily found.

WELCOME TO OUR BOOTH AT ATLANTIC CITY
MEETING OF N. E. A.

"QUALITY FIRST"

35 Years of Recognized Supremacy

UNDERWOOD & UNDERWOOD, Inc.,

417 Fifth Ave.

Dept. O

New York

"McIntosh Lanterns are Honest Lanterns."

Plan Ahead

You are doing it in school building. You should in equipment.

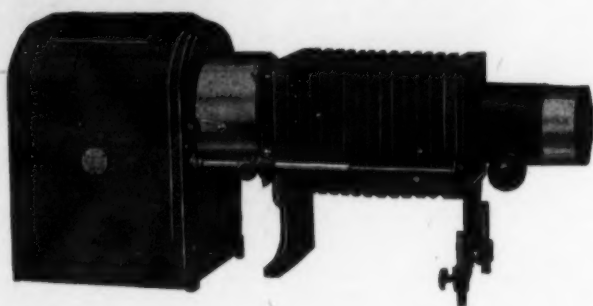
To avail yourself of the ever increasing supply of Visual Instruction material—to use it practically in the schools, start now planning your slide library.

Pictures are more important than books. Everyone can read them—especially when they are projected—life size to a screen in the classroom.

McIntosh Slides are planned to teach—get the catalogs and start your library—plan it ahead and add to it each year.

For class room or assembly hall there is the

Automatic Sciopicon



Price complete with 400 w. lamp.....\$55.00
Other lanterns from \$43.00 up.

McIntosh Stereopticon Company

427 Atlas Block

Chicago, Ill.

FOR THAT NEW SCHOOL BUILDING—

You will need an Electric Time and Program Clock System, if you would have a School that is modern in all respects.

We can furnish you equipment at moderate prices no matter how simple or complex your needs may be.

Write today for catalog.

Let us prepare specifications for your Architect to meet your particular requirements.

++++

LANDIS ENGINEERING & MFG. CO.



Waynesboro,
Pa.



SETH THOMAS Secondary Clocks FOR SCHOOLS

They maintain uniform time throughout the various class rooms and eliminate all the confusion and loss of time which arise from dismissing the various classes at different times.



Seth Thomas Secondary Clocks are connected with the master clock electrically and are absolutely synchronous with it at all times.

Write today for specifications and catalog describing Seth Thomas Secondary Clocks.

SETH THOMAS CLOCK CO.

Established 1813

Factories: Thomaston, Conn.

NEW YORK CHICAGO SAN FRANCISCO



TESTED *HAHL* SERVICE SPEAKS WELL FOR ITSELF

Each year more schools than ever specify a repeat installation of the

HAHL PNEUMATIC CLOCK SYSTEM

These School Boards stick to the *Hahl*, because once installed the air and gravity system soon proves its worth in

**LOW UP-KEEP COST
DEPENDABILITY
SIMPLICITY OF CONTROL**

In choosing your clock system let yourself be governed by its past record. The *Hahl* always satisfies.

**TESTED SERVICE FOR
THIRTY YEARS**

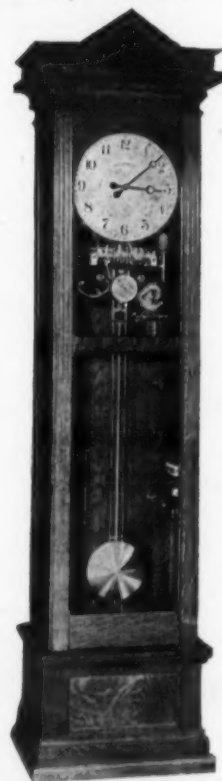
Time Systems Company

Western Office
Omaha School Supply Co.
Omaha, Nebr.

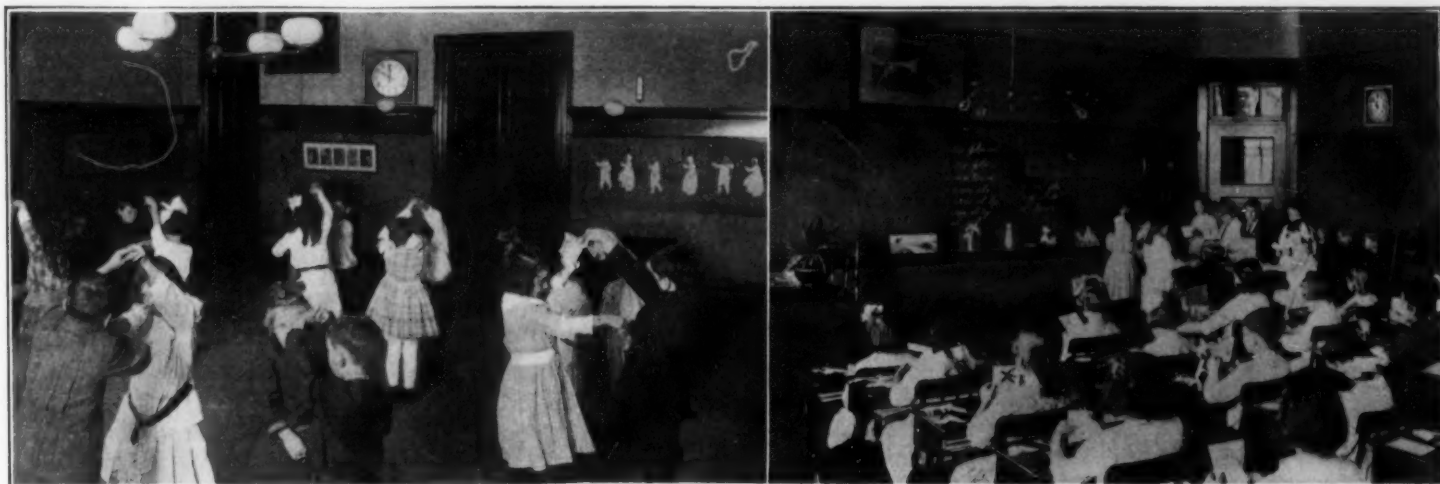
4612 WOODWARD AVE.,
DETROIT.
(Old Number 870)

Chicago Office
501 W. Huron St.

Note—Owing to rearrangement of city numbering system, our street number has been changed.



GUARDING THE MINUTES—IN WORK TIME AND PLAY TIME



"Standard" electric time equipment watches over the precious minutes of school days, preventing too much time being used for one subject at the expense of another, simplifying the whole school routine and promoting punctuality and efficiency among both pupils and teachers.

Perfected through 36 years' experience. Each equipment carefully engineered to fit requirements. Helpful co-operation furnished architects, contractors, and school boards, insuring satisfaction.

See our exhibit at the N. E. A. Convention, February 25th to March 3rd.
Booth No. 17, Young's Million Dollar Pier, Atlantic City, N. J.

THE STANDARD ELECTRIC TIME COMPANY SPRINGFIELD, MASS.

BRANCHES

261 FRANKLIN STREET
BOSTON, MASS.

50 CHURCH STREET
NEW YORK

461 MARKET STREET
SAN FRANCISCO, CALIF.

1361 MONADNOCK BLDG.
CHICAGO

752 BROWN-MARX BLDG.
BIRMINGHAM, ALA.

421 NEW 1ST NAT. BANK BLDG.
COLUMBUS, OHIO

801 8TH ST. S. E.
MINNEAPOLIS, MINN.

Teachers' Salaries in North Dakota Classified High Schools

(Concluded from Page 38)

In order to make a comparison, reports were secured from twenty schools in Minnesota, of like rank with those in North Dakota; and also from several in Montana. On the whole the salaries paid were about the same in all three states with the preference, if any, in favor of North Dakota.

The cost of board and room was also taken into consideration, the average per school month for the teachers in all districts included in the first section being \$46.63; in the second section \$43.22; and in the third section \$41.77. Taken together, the present average cost of a North Dakota teacher for board and room is \$43.87 per month. This is a trifle higher than the average reported for Minnesota, and not quite as much as that paid in Montana.

That the salaries paid might be interpreted from the viewpoints of the number of years of experience and the number of years a teacher has been in his present position, including this present year, these items are listed below as follows:

| Position— | No. Yrs. Experience | No. Yrs. in Present Position |
|----------------------|------------------------|---------------------------------------|
| Superintendent | 10.77 | 3.04 |
| Principal | 4.58 | 1.95 |
| H. S. Teachers..... | 3.29 | 1.29 |
| Music & Draw..... | 3.28 | 1.53 |
| Dom. Sc. & Art..... | 3.47 | 1.70 |
| Man. Training | 4.73 | 2.14 |
| Commercial | 4.00 | 1.92 |
| Agricultural | 1.33 | 1.12 |
| 8th Grade | 5.05 | 2.02 |
| 7th Grade | 4.34 | 1.76 |
| 6th Grade | 3.80 | 1.49 |

| | | |
|-----------------|------|------|
| 5th Grade | 3.51 | 1.49 |
| 4th Grade | 3.70 | 1.61 |
| 3rd Grade | 3.50 | 1.74 |
| 2nd Grade | 3.78 | 1.92 |
| 1st Grade | 4.87 | 2.64 |

The average number of years of experience of all teachers is 4.25. The average number of years in the present position, including this year, of all teachers is 1.835. In other words the majority of the teachers in the classified high schools of North Dakota have been in their present position for less than a year.

An analysis of these returns shows that outside of the salaries paid to superintendents and high school principals the average difference for each section is about one hundred dollars, and that some of this is used in taking care of the extra cost of board and room. In conclusion, we find that the minimum for salaries has been raised but no corresponding increase has been paid for successful experience.

The Right Kind of P. T. A.

(Concluded from Page 49)

the benefits to all concerned which are made possible by the right sort of P. T. A. I have not tried to show the pleasant social features which result in the teacher's life from an association of this kind, for they are by-products. The main consideration should be the welfare of the children, and there is no doubt that it is greatly enhanced when parents and teachers work thus in mutual respect and harmony.

Play at the Rural School

(Concluded from Page 32)

ized by the rural teacher, and she should make it her practice to be on the school ground at recess and noons so far as possible. In many

cases this has solved the problem of discipline and this is almost the only way that the character and ideals of the teacher may influence the character and ideals of the children, which is surely an educational influence no less in importance than the training in arithmetic. In the fifteen states which have put laws in physical training and play into the program, at least one-half of this time is to be spent in organized games which should be out-of-doors whenever it is possible.

It is not impossible, however, that physical directors should be employed for the work in the rural schools in much the same way as in other schools. In New York, there are a large number of physical directors who are working almost entirely in the rural schools. In any county where roads are macadamized or asphalted, it is possible for a physical director on a motorcycle to go to a number of different schools each day and organize play no less efficiently there than in the city schools.

Tournaments.

In the State of Maryland, there is an appropriation every year by the legislature for the conduct of a play tournament in each of the counties of the state, and about one-fourth of the counties thruout the United States are probably holding such tournaments each year.

These tournaments should cover the games which are best suited for rural schools like volley ball, playground baseball, tether ball, croquet and the common races and athletic events. So far as possible, all children should be induced to take part. Group games and relay races which require a large number of participants should be encouraged.

Speed—Accuracy—Durability

In these essential features that make
for the best in typewriting the

UNDERWOOD
IS
SUPREME

Proved by all international records
since annual contests were inaugurated

Underwood Typewriter Company (Inc.)

Underwood Building

New York City

Supervisory Conference after Supervision (Concluded from Page 51)

task of the supervisor, and of all the way stations along the supervisory line the after conference is the union. Three words will express the task of the supervisory after conference, Organization, Functionalization and Co-operation, these three, but the greatest of these is, CO-OPERATION.

Human Waste in Education (Concluded from Page 46)

Contrast these two examples with the following: A little over a year ago it was my good fortune to be present at a meeting of the board of directors of a manufacturing concern. The purpose was to select an employment manager. They employed over 20,000 people. There was a host of applicants. However, instead of selecting the man who served in the largest manufacturing concern, the man who probably had the best experience in positions as far as size was concerned, they selected a young man who never held a like position with a concern employing over 500 people.

Why? The reason, as given by the board, was that this young man had demonstrated that he had a bigger vision concerning the work than any man represented. This man was selected on a purely business principle, upon merit instead of petty politics or favoritism. What a difference between the selection of the two boards of education and this manufacturing board!

A long time ago someone said that a country school was a little building on a little plot of ground, in a little community, taught by a little teacher, teaching little things to little children. Is it that we still cling to this traditional say-

ing, when it comes to the selecting of educational leadership? Have we not yet realized that education is the biggest business in the country? Have we failed to apply business methods to education?

Surely so long as such haphazard methods persist on the part of those responsible for our educational program, can we not say that education is a business—a serious business—because it deals with the prime asset of mankind?

Waste! Penny Wisdom! surely must be the slogan of boards of education employing such methods as described. As a rule they believe in magnificent buildings, and the teaching of everything under the sun but the way to live. And when it comes to the selecting of the man to guide the educational system of their youths they take it all out of the efficiency of their boys and girls by applying short-sightedness and small scheming.

So long as these conditions exist must we fear for the safety of our republic. Boards of education must come to realize that regardless of the place from which a man comes, regardless of the size of the position to be filled, the selection of the man must be based on proven ability and vision of the future needs of our educational system. Taking a man from a large city to fill the superintendency of a still larger city is by no means a safe guide to efficiency.

The fact that a man holds a responsible position in a large city does not prove that he is a safe educational guide. Routine and pussy-footing can do this. But it takes a man of large vision, a man of sound educational qualifications, a man acquainted with the new things, a man who can defy precedent; if need be, a man of initiative and ability for organized work, and

a strong capacity to deal with other men to fill any superintendency regardless of the size of the position. Such a man may safely be selected to guide the educational system of a city of any size, anywhere.

At present the smell of the bargain counter surely hangs over the public schools, cheapening the teachers, substituting shoddy vision for genuine mind-stuff, depriving children of the right of the best, and defrauding the community to an extent immeasurable. May the time soon dawn when party politics, petty scheming and lack of vision shall give way to sound business principles, and when the selection of educational leadership shall depend upon merit and vision rather than age and location or size of the position now held!

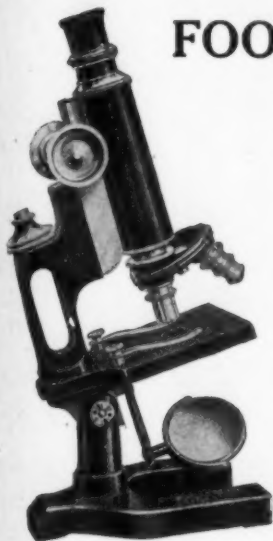
Hood said: "Oh, that bread and butter should be so dear, and human flesh so cheap."

Closing schools as a means of controlling epidemics of measles, whooping cough, scarlet fever, diphtheria, smallpox and poliomyelitis should be considered as a last resort, to be used only when thoro and systematic application of other measures fails to effect control. As a method it is clumsy, unscientific, and unsatisfactory, for it fails to control and results in the loss of school time and money. The modern method of careful daily inspection of infected schools, isolation of sick children and quarantine of contacts, is both more effective and economical.—*U. S. Pub. Health Rep.*, Nov. 21, 1919.

Cincinnati, O. The board of education has reaffirmed a rule forbidding smoking in school buildings. Principals have been asked to take up the matter with community and social organizations which use the schools, and to explain the reasons for its enactment and enforcement.

CHAPTER IV

Chapters I, II and III will be found in the November, December and January Numbers



No. 8544

FOOLS RUSH IN

where angels fear to tread, is an adage which applies as well to manufacturing as to other activities. The members of the new firm were well aware of the truth of this old saying and we believe demonstrated their wisdom by the immediate adoption of a different policy.

While the center of the new organization may be said to have been the manufacturing department, yet it was very early decided by the members of the firm that manufacturing activities should be carefully confined to that field—and a vast one it was—in which no marked degree of superiority had been attained by any individual institution. This policy has been maintained to this day and accounts for the reluctance of the company to invade any field prominently occupied by manufacturers whose goods have become recognized as standard.

As it was the desire of the new organization to be in a position to render a complete service to the schools of the country, it became a matter of immediate concern to make connections with other manufacturers of standard instruments which would enable the company to furnish a complete line, including every kind of instrument or apparatus required in any scientific laboratory course.

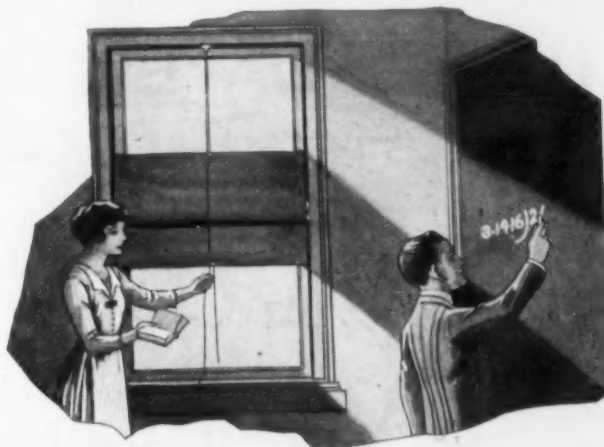
Another concern which was undergoing a reorganization at about this time was the Spencer Lens Company of Buffalo, whose founders, Charles A. Spencer and Robert B. Tolles, were the pioneer microscope makers in this country. To these two men are due such important advances in microscopy as the use of Fluorite in the achromatic objective, the invention of the Homogeneous Immersion Objective and the Binocular Eyepiece (see Gage, "The Microscope"). Recognizing the excellence of this company in the field of optical instruments, the Central Scientific Company entered into a sales agreement with the Spencer Lens Company, as a result of which the name Spencer has become synonymous with that of microscope in the high schools not only in this country but in China, India and throughout the world. Thousands of Spencer Microscopes have passed through our stock and shipping rooms, and without exception, they have met with enthusiasm on the part of their users.

In looking back over the achievements of twenty years, we believe that we have rendered no greater service to the schools of the country than by the wide publicity and distribution which we have given to Spencer Microscopes.

The next chapter will contain an account of an accomplishment entirely within our own organization.

(To be continued)

CENTRAL SCIENTIFIC CO.
CENCO
CHICAGO-U.S.A.



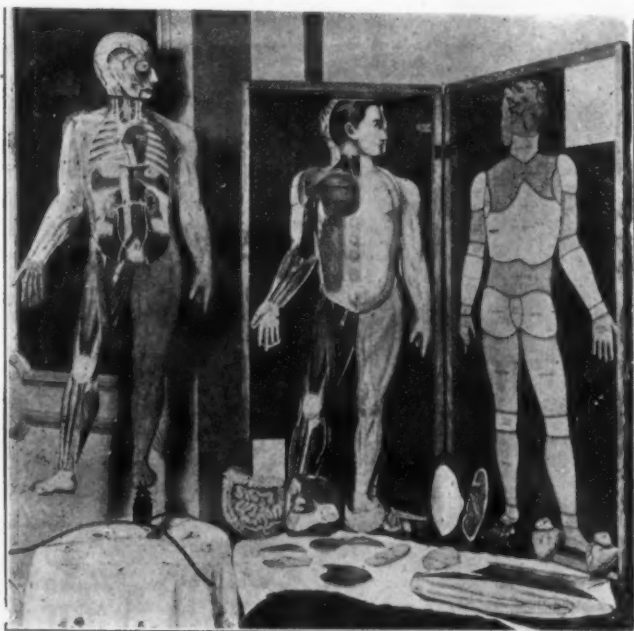
Unvarying Light!

CLOUDY days and bright days—yet the school room with Hartshorn Shade Equipment maintains a constantly correct degree of light. Never a glare to injure young eyes, never a checking of free and adequate ventilation. Hartshorn two-way rollers, operating Oswego Tinted Cambric, or Triplex Shadowless Opaque Shade Cloth, offer the most scientific means of light control possible.

Write for samples of Colors 214 and 204 in Tinted Cambric, which have been analyzed by chemists and adopted by School Boards of many municipalities.

Stewart Hartshorn
SHADE ROLLERS AND WINDOW SHADE FABRICS

STEWART HARTSHORN CO., 250 FIFTH AVENUE, NEW YORK



Convention Special (For the month of February only) 20% Discount

Smith's American Manikin is indispensable to schools for teaching of general anatomy. Height about 4 feet (mounted); light but strong; entire weight (including cabinet) is only 25 lbs.

The manikin body, as well as cabinet, made of wood, 3-ply veneer, guaranteed not to warp or split. All dissecting parts (33 plates) made of steel, therefore unbreakable.

This manikin is far superior to charts for practical teaching, besides much cheaper. Send for illustrated circular.

Price (complete with cabinet), \$45. (Value \$100.)

Orders never booked "as a sale" before goods meet your full approval after inspection.

AMERICAN MANIKIN COMPANY

238 East 34th St., New York City

Please mention American School Board Journal when ordering.



When you go to the ATLANTIC CITY

Convention of the N. E. A. be sure to visit us at booths Nos. 70 and 71 to personally inspect a new and up-to-date series of large size wall maps—the

WHITBECK-FINCH SERIES

POLITICAL GEOGRAPHY WALL MAPS

Eight Large Maps—Size 65x55"

Designed and Edited by

R. H. WHITBECK AND V. C. FINCH

Department of Geography, University of Wisconsin

We will also have on display many other new items that have been added to the "Johnston-Nystrom Line" during the past year—Geographical and Historical Pictures, Biology Charts, Actual Relief Desk Outline Maps, and advance samples of the new

WEBSTER-KNOWLTON-HAZEN
ANCIENT, MEDIEVAL AND MODERN EUROPEAN HISTORY MAPS

A call will be worth-while

A. J. NYSTROM & CO.

Publishers and Importers of Maps, Charts and Globes

2249-53 Calumet Ave.

CHICAGO, ILL.

USE THE DAYLIGHT KILL THE GLARE



Our Self-Balancing Adjustable fixtures are Simple, Durable and Fool-Proof.

ESTABLISHED
1905

You Can Do It
AND

Do It Better

WITH THE

E L T
EVER - LASTING - TRANSLUCENT
WINDOW SHADE

OUR NEW SHADE FOLDER IS
NOW READY. WRITE FOR IT.

THE ORIGINAL

WALGER
AWNING COMPANY

GENERAL OFFICES AND FACTORY:
CHICAGO

The Paste that "Stays Put"—

'Commercial Gluey' No. 800

for Schools
and Art Departments

More than 400 Schools are
using GLUEY this year.
It is smooth, clean, quick
acting and holds tightly.

The Economical Way is—

| | |
|--------------------------------|---------|
| 1 Gallon Stone Jars, per dozen | \$13.20 |
| ½ " Tins " " | 7.60 |
| Quart Tin or Glass Jars, " " | 4.50 |
| Pint " " " " | 2.75 |

WRITE FOR JOBBER'S DISCOUNT

The Commercial Paste Co.

504-520 Buttles Ave.

Columbus, Ohio, U. S. A.

You can buy two or three
Years' supply from us for
What one year's supply
Costs you some other places.

We have never had a complaint
From a Customer so our quality
Must be really good.

If you buy your Diplomas now,
You won't be without them on
Graduation Day. We have never
Fallen down on a Diploma order
Yet, and we ship them all over
The United States and outside, too.

We have a Diploma Catalog that
Presents our Diploma line in a
New way that is convenient for a
Customer to look at. Tell us
Your name so we can send you
One. Our name is the Educational
Supplies Company, Cedar Rapids,
Iowa. We have a big general
School Supply Catalog, too. Want
One too?

P. S. If you will let us send
you the above there will be NO CHARGE.
They are FREE.



Dann's All-Steel Dictionary Holder

(Made entirely of steel)

No woods to gather germs and to warp.
No iron to corrode; no springs to break.
Can be adjusted to hold any size book.
Can be raised and lowered at will.
Can be tilted to any angle and pivoted to
any position.

Circular and prices of our
Stand and Wall-Bracket
Holders mailed on request

Union School Furnishing Co.

Manufacturers, Publishers and Dealers
in School Furniture and School Supplies

Chicago, Ill.

Houston, Tex.

A Short Course for Janitor Engineers

By KENNETH G. SMITH, M. E.

This book has been produced to give the school janitor-engineer the basic technical information concerning heat, air, firing boilers, steam heating, ventilation, cleaning, etc., necessary to do his work intelligently and effectively.

No school building is complete without the book.

School Boards are now supplying copies for every janitor in the city.

Leatherette, 206 pages.

Price, \$1.25, net.

THE BRUCE PUBLISHING COMPANY
202 MONTGOMERY BLDG.,
MILWAUKEE, WIS.

COLOR EFFECTS



Prang
Red-Yellow

Box 3-A
Blue-Black

The most practical water color box for all primary color work. Use *Prang Colors* and assure better results. Made in all assortments from four to sixteen pans, including brush.

The American Crayon Company
Established in 1835

Sandusky, O.

New York.



Technique Outside of Teaching Experience

(Concluded from Page 36)

as many mistakes. The climax came when I got the name of the stock company actress in place of the guest of honor at a soiree given by one of the blue-bloods. I got that story from a fellow on the street who said he was footman in the blue-blood's home. He must have been a practical joker. The editor couldn't see the joke. He said to me, "You're fired."

I couldn't say anything at all for a minute. Now my father and the editor were close friends and my father had made some of the arrangements which got me into the newspaper office. When I could think of anything to answer to the statement, "You're fired," I blurted out, "You'll have to speak to my father about that."

The editor burst out laughing. I couldn't see the joke. Then, as I was putting on my hat, he said, "Go over to the drug store and buy me a cigar and if you don't make any mistake in the errand I'll take you in as office boy when you come back."

Soon afterwards I got another assignment and felt that I had again regained that sublime elevation to the office of cub reporter, from which I had such a short time before so ignominiously fallen.

This experience I had in getting fired taught me to go to headquarters for information. If a wedding was impending, no how, but I must actually see the bride; if an obituary was to be gotten, as the corpse itself couldn't be interviewed, I insisted on talking with the nearest relative.

Now as a superintendent of schools, when a trouble monger brings me a rumor, I try to follow it to headquarters before passing it on or being profoundly influenced by it.

Probably, too, when I have the misfortune to get fired as a superintendent there will still be some job open as an office boy where I can get into the swing and begin "turning out copy." again. Father is dead, so the school committee can't talk to him before letting me go. Probably it is just as well that they can't.

I have changed my mind about that year that I might have spent in the rural school. If my boy wants to be a school superintendent I shall advise him to put in his vacations in some newspaper office and "pass up" the rural school.

The Quest for the Question

(Concluded from Page 43)

covered" radium by asking how far a cat can spit, or a dog run. What they did was to build on the work of others before them, cease asking again the silly queries of alchemists or other amateurs before them, guide their experiments into the appropriate channels, and locate the right problem in the right context, where a solution almost leaped at them from furnace or retort.

All life, in a sense, is the quest for question. We are most of us always trying to ask something, yet seldom sure whether it be the proper point to make, or motion to argue. We get on, if we make progress at all, by learning ever and ever to ask better questions, while expending more and more patient endeavor on the problems—as individual differences, specific abilities, measurement of the products of intellect, "reconstruction," and the like—which have already merged to notice, and which provide just now a more than ordinarily urgent urge to research.

Today has its full sheaf of suggestions, and its bursting quiver of problems, but in today already walk the issues of tomorrow, and we must even now be making out the syllabus for

the next generation to take in hand, and, in its turn, revise.

If character were a finished product there would not be much for which to live;—we knew it all we would not, it is likely, want to know at all, for he who is sated is seldom a seeker. It is the hope that we—or others around us—are on the brink of a new discovery that keeps up our interest in education; it is for the reason that any child we know may turn out to be a Columbus that we go on teaching him. The greatest problem then is to find the problem; it is the quest for the question that gives zest to life; it is the further development of character that will make it worth while for anyone to live forever.

A Progressive School Board

On page 41, we present a photograph of the board of education of the United Township High School District of East Moline, Illinois. The board is backing one of the strongest educational community extension and social activity programs in Illinois. The school under its direction is a complete community high school, which offers a ten months' school session. During the winter a free lecture and entertainment course is given in the school building and under the direction of the superintendent of schools, is being successfully conducted. The programs which are held semi-monthly, include musicals, entertainments, illustrated lectures, etc.

The school has the largest music department of any high school of its size in Illinois. The superintendent conducts a band of 37 pieces and an orchestra of fifteen pieces, all made up of students. The Home Economics Extension course in the school holds classes for girls and married women two nights each week. A club of young women meets regularly each week in the school building. The school gymnasium is used weekly for evening basket ball games and an active parent-teachers' association meets bi-weekly.

SAMUEL LEWIS

HEADQUARTERS FOR

ALL KINDS OF CLEANING SUPPLIES



can fill your needs at all times in short order:

| | |
|------------------------|------------------|
| Baskets | Feather Dusters |
| Brushes | Fibre Baskets |
| Brooms | LIQUID SOAP |
| Carpet Sweepers | Mats and Matting |
| Chamois | Mops and Handles |
| Cheese Cloth | WUNDERMOPS |
| Disinfectants | Paper Cups |
| Drainage Clearer | PAPER TOWELS |
| Dust Pans | Toilet Paper |
| Dustless Cleaners | Water Coolers |
| Emergency Fire Buckets | Window Poles |

Every buyer of school supplies should have my 1920 edition Encyclopedia of Cleaning Supplies right on your desks at all times.

It will be sent free to any Secretary, Purchasing Agent or Business Manager upon request. Write now to

"SUPPLIES OF QUALITY"

Samuel Lewis.

MANUFACTURER, EXPORTER AND JOBBER

GENERAL CLEANING SUPPLIES

71 BARCLAY ST.

NEW YORK CITY

ORDER SCHOOL DESKS NOW

AND ORDER FROM YOUR NEAREST DEALER.

STAFFORD desks carried in stock and sold at prices consistent with fair business principles and guaranteed quality by the following RESPONSIBLE FIRMS.



"THE ECONOMIC"

J. H. Pence, Roanoke, Va.
 Goldsmith Book and Stationery Co., Wichita, Kans.
 Houston Show Case & Mfg. Co., Houston, Texas.
 Shields Stationery Co., Salt Lake City, Utah.
 G. C. Everett, Baton Rouge, La.
 Western School Supply Co., Boise, Idaho.
 John W. Graham & Co., Spokane, Wash.
 Lowman & Hanford Co., Seattle, Wash.
 W. E. Finzer & Co., Portland, Ore.
 E. D. Edwards, Oklahoma City, Okla.
 Morris Bros., Stockton, Calif.
 B. E. Calkins Co., Butte, Montana.
 P. G. Pugh Ptg. Co., Little Rock, Ark.

E. H. STAFFORD MFG. CO.
 CHICAGO, ILL.

Ask for Catalog A. J. mailed free
 School Desks, Lodge Furniture, Church
 Pews, Opera Chairs, Phonographs, Fireless
 Cookers. County Agents Wanted.

The Progressive Music Series

SUCCESSFUL BECAUSE
 BASED ON THE BELIEF THAT

Children should sing music before they study it, just as they talk before they learn to read.

A good song is the only correct basis for music study.

The only true stimulus in music study comes as a result of interest in good music.

THE PROGRESSIVE MUSIC SERIES contains hundreds of the best songs, all of them of great beauty and charm.

The material of THE PROGRESSIVE MUSIC SERIES is arranged to correspond to the various stages of child development.

SILVER, BURDETT & COMPANY

Boston

New York

Chicago

San Francisco



VUL-COT—
 the School
 Waste Basket

More *Vul-Cots* are sold to school purchasing boards than any other basket—almost as many, in fact, as all other makes combined.

The reason is obvious—*Vul-Cots* are physically able to stand the strenuous service in school use. They are solid and will hold *all* the waste they receive. They are rust and corrosion proof, smooth and sanitary—and they will not dent, splinter or warp.

They last longer per dollar of cost than any other basket.

VUL-COT WASTE BASKETS
 Guaranteed 5-years

We'll send you descriptive literature and samples of *Vul-Cot* Fibre, the material of which *Vul-Cots* are made—Will you send us your dealer's name and address?



AMERICAN VULCANIZED FIBRE CO.
 520 EQUITABLE BLDG. WILMINGTON, DELAWARE

Canadian Distributors: A. R. MacDougall & Co.
 468 King St., W. Toronto, Canada

Steel Lockers

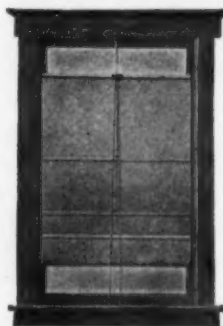
for Schools
 and Clubs

Write for Full Catalog

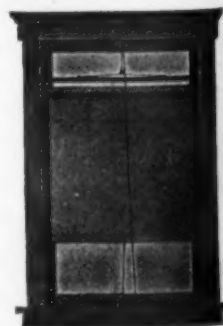
THE ARMOR CLAD MFG. CO.
 CANTON, OHIO



2 OF THE 15 VARIETIES



STEELE'S
DUCK
SHADES

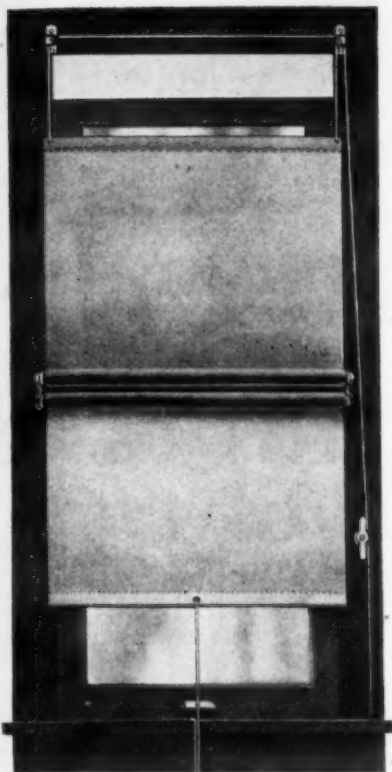


Write for Prices, Catalog and Free Sample

OLIVER C. STEELE MFG. CO.
 SPICELAND, IND.

THE DURA DOUBLE ROLL CANVAS SHADE

PATENTED



The DURA DOUBLE ROLL CANVAS SHADE is a superfine product.

It is the BEST window shade for schools because it is practically indestructible, and embodies an adjustable feature (Patented) which is the nearest approach to perfection yet attained in adjustable shade equipment.

It is the CHEAPEST window shade for schools because it is the best.

WHITCOMB & BOYCE
MANUFACTURERS

230 South Wells Street, CHICAGO

For your convenience Dura Double Roll Canvas Shades and information regarding same may be obtained from any of the leading School Supply Jobbers

THE DIPLOMA HOUSE OF AMERICA



The House Behind the Product

**1921 DIPLOMA CATALOG
NOW READY**

Send For Your Copy

METROPOLITAN SUPPLY CO.

Scott Street, From Main to First

ANAMOSA, IOWA

Building Character

is the great work (and none greater)
of the Teacher.

Aid the Teacher all you can,—not forgetting the part played in School by the Lead Pencil.

Send for our booklet on this subject.

**JOSEPH DIXON
CRUCIBLE
COMPANY**

Pencil Dept. 31 J.

JERSEY CITY

NEW JERSEY

| | | | | | | |
|---------------|----|----|----|----|----|----|
| FEBRUARY 1921 | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | ♥ | ♥ | ♥ | ♥ | ♥ |

DRAWING IN THE GRADES

A generation ago the drawing work in the grades consisted largely in the copying of dictated exercises in a mechanical way.

To-day, practical problems, combining construction with design, have taken the place of the uninteresting copying exercises.

Colored crayons have helped in the growth of practical art instruction. For years art supervisors, art teachers, and grade teachers have found a simple, colorful and inexpensive medium in

GOLD MEDAL CRAYONS
"Crayola" and Other Crayons for Pupils and Teachers.

Send for samples, and our brochure "What the Average Teacher May Accomplish in Blackboard Drawing."

BINNEY & SMITH CO.,
81-83 Fulton St., New York



National and Foreign of every description
Our "Paramount" quality IS Paramount

STEEL FLAG POLES

Unquestionably the Best Value on the Market

Playground Apparatus

PRICE LISTS MAILED ON REQUEST

The Chicago Canvas Goods & Flag Co.

180 North Dearborn Street

Chicago, Ill.

SCHOOL SUPPLIES AND BOOKS

MILTON BRADLEY COMPANY

Springfield, Mass.

(The Good Old Bradley Line)



We are EXCLUSIVE agents for the above firm in the following ten states:

Illinois, Indiana, Michigan, Kentucky, Wisconsin, Iowa, Nebraska, Minnesota, North Dakota, South Dakota.

All orders for BRADLEY Materials and Books should be sent DIRECT to us.

THOMAS CHARLES COMPANY

2249-53 Calumet Avenue, CHICAGO, ILL.

Telephone: Calumet 6127

SILICATE VENEER PLATE
BLACK BOARD

Why don't you purchase the best goods for your school? Our revolving blackboards and roll blackboards have been in constant use in all the Public Schools in New York, and the principal cities for thirty-six years, which is a sufficient guarantee. Send for our illustrated catalog and discount sheet and compare prices with other manufacturers.

N. Y. Silicate Book Slate Co.

20-22-24 Vesey Street
NEW YORK

The Norton Liquid Door Closer with Hold-Open Arms

Use The Norton Liquid Door Closer with Hold-Open Arms and do away with door stop on bottom of door.



Approved by the National Board of Fire Underwriters Laboratories

THE NORTON DOOR CLOSER CO., 904 W. Lake St., CHICAGO, ILL.

WHY IS THE NORTON CLOSER WITH HOLD-OPEN ARMS THE BEST SUITED FOR SCHOOLHOUSE WORK?

1st. The doors are closed with a uniform speed which gives the pupils a chance to go through a door without getting caught or injured.

2nd. Having two speeds—the speed at the latch can be set for absolute quiet—no latch necessary.

3rd. The Hold-Open Device connected with the arm of the Door Closer is automatic, a child can operate it—just a push or pull on the door is all there is to do to it. Does away with door stop, hook or strap to hold door open. Every school-room should have one.

It Took Him a Half Day To Find It

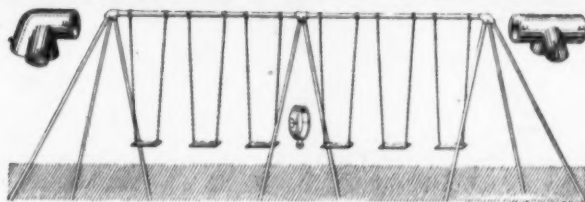
**YOU CAN FIND IT
IN HALF A MINUTE**

If you use Roberts & Meck's
RECORD FORMS, SCHOOL RECORDS
of all kinds. Samples and prices on application.

ROBERTS & MECK

HARRISBURG, PA.

STEEL FLAG POLES AND PLAYGROUND SWINGS



Write for Folder S

Our Prices are so low that you will certainly be interested.

Factories: West Orange, N. J. and Milwaukee, Wis.

NEWARK STEEL POST CO.

WEST ORANGE, N. J.

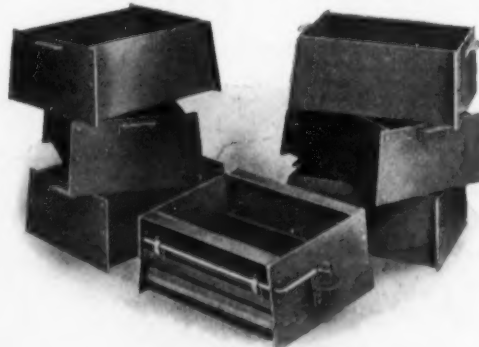
NATIONAL DUSTLESS CRAYONS

Economy Plus Satisfaction

By actual test, NATIONAL DUSTLESS CRAYONS are stronger and will write and erase more easily than any other blackboard crayon.

Write for samples and put them to the test. Place your order for NATIONAL DUSTLESS CRAYONS through your supply dealer, with our guarantee that every gross will give entire satisfaction.

THE NATIONAL CRAYON COMPANY
WEST CHESTER, PA.



IF you are interested in demonstrating Modern Foundry Equipment and up-to-date methods you will ask for details of the

"Oliver" All Steel Snap Flasks
(Self Releasing)

OLIVER MACHINERY COMPANY

Grand Rapids, Mich., U. S. A.



Fifty years ago, school children used *leather book straps*. Now they use *Eberhard Faber's No. 107 7-inch Rubber Bands*.

WHY?

—Because they last longer, are stronger and accommodate themselves to any reasonable number of books.

Apply at your local stationer.

EBERHARD FABER

"The Oldest Pencil Factory in America"
NEW YORK



A Better "Library Paste"

"Stixit" Was the First Improvement in "Library Paste" in 25 Years



"The Stickiest Paste in Town"

Paste is one of the necessities of the School Room. All "Flour Pastes" dry out and chip off. "Stixit" takes hold—and hangs on—and never lets go! It costs no more. It goes farther. It is more economical.

4 oz. tubes.....20c. 1/2 pt.....45c
1 qt.....75c. 1 qt.....\$1.20. 1 gal.....\$3.75

Liberal Discount on Quantity Orders.

Specify "Stixit"

Send for New "Illustrated Circular"

THE PRANG COMPANY

1922 Calumet Ave., Chicago. 30 Irving Place, New York.

Makers of "Enamelac" and "Permodello"

KVALE'S Stain-less SCHOOL INK



In Powder Form

A highly concentrated ink powder. Simply add water.

Makes fine quality school ink which is permanent on paper, but readily washes out of clothing—a desirable feature for school ink.

Puts an end to freezing troubles. Costs about 1/5 as much as fluid ink—and is better for school purposes.

Send for free sample and price list, and state number of gallons you use.

JOHN KVALE INK CO.

Member Nat'l School Supply Assn.

1020-8 So. Dearborn Street, CHICAGO



You receive full value
when you buy

FLAGS

MADE OF

STERLING

Reg. U. S. Pat. Off.

Double Warp All Wool Bunting

A Flag of sterling
quality

OR OF

DEFIANCE

Reg. U. S. Pat. Off.

Two Ply Cotton Bunting

A Flag that bids defiance
to the weather

Made only by **ANNIN & CO.**

Largest Flag House in the World

99-101 FULTON ST., NEW YORK

CLASSIFIED WANTS

"CHO-SECO" INK PELLETS

"Cho-Seco" Ink Pellets—Now recognized by ink critics as the last word for quality, convenience and economy. Already the favorite with many State Normals, City and Village schools, because they solve the ink problem as never solved before. Not Powder nor Paste but Pellets—no fuss, no muss. Free sample postpaid upon request. Cho-Seco Ink Pellet Co., Opp. Union Station, Albany, N. Y.

WANTED

Office and Sales Manager—An old established and reputable school supply and furniture house located in

Copy for this page must reach us at Milwaukee not later than the 15th, preceding the date of issue. All advertisements are guaranteed. The rate is 10 cents per word, per insertion, minimum of fifteen words accepted.

Chicago desires the services of a competent and reliable office and sales manager. A man who has had experience in the line or one who is in school work and possesses ability preferred. The position offers an excellent opportunity for the right man. Salary moderate until capability proved. Applicants will please state experience had and minimum salary would accept to start. All applications treated in strict confidence. Address replies to

Advertiser for Manager, care of Bruce Publishing Co., 354 Milwaukee St., Milwaukee, Wisconsin.

DIPLOMA ENGROSSING

Diploma Engrossing—Time and care are required to do good engrossing. Work of this kind can be done better if it is done now rather than if it is rushed the last of June. Write for specimens and estimates. R. A. Loomis, 210 Grant Ave., Jersey City, N. J.

INCREASE HIGH SCHOOL ATTENDANCE

"Will it pay me to go to High School?" is the title of an inspiring little booklet to boost your high school attendance. Sample copy 5 cents. 100 copies \$2.00. Thomas E. Sanders, Racine, Wisconsin.

SCHOOL INK

Century Ink Essence — (Powder Crystals) is the most satisfactory and economical ink for school use. Send for sample and price list. Francis J. Peck & Co., Superior Bldg., Cleveland, Ohio.

THE ARMSTRONG COMPANY SECTIONAL SCHOOL BUILDINGS



OUR PLANS APPROVED BY YOUR SCHOOL BOARD

AND MEET EVERY REQUIREMENT OF YOUR BUILDING CODE

The ARMSTRONG SECTIONAL SCHOOL BUILDINGS are complete in every detail, having double floors, double side walls and ceilings. With every modern convenience makes them the best Portable School Buildings on the market today. With the perfect lighting and ventilation, they are without equal. Our buildings can be taken down and moved to another location without mutilating in the least any of the parts. We can prove it. If you write us what you desire, we will send you full details. We are specialists in Sectional School construction.

THE ARMSTRONG COMPANY, P. O., 401, ITHACA, NEW YORK

Protect the Health of the Children

If the children in the classroom should be bright and cheery the heat must be uniform and the ventilation just right.

Heating and Ventilation are two important factors in the school room. If the air in the schoolroom is foul and ventilation poor, disease is almost inevitable.

OLD DOMINION PATENT HEATING AND VENTILATING SYSTEM

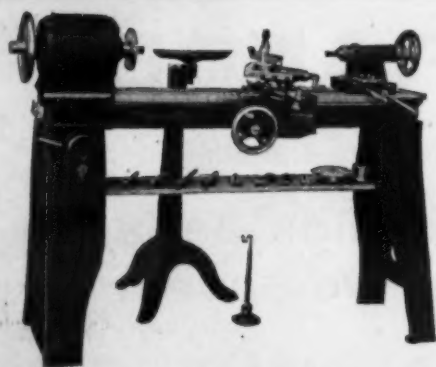
will keep the room fresh with pure air yet warm and comfortable.

No separate independent foul air ducts or flues made of brick or metal are required. It is easy to set up and regulate and will not clog with soot or rot out. Every part is combined and all stove and ventilating pipes up to five feet are furnished.

Our descriptive catalog gives full information and will be sent upon request.

Virginia School Supply Company

2000-2012 W. Marshall St. Richmond, Va.



Woodworking Machinery for Manual Training Work.

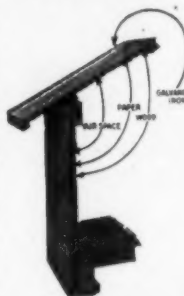
Every School Board should have our catalog on file. Let us send you a copy.

American Wood Working Machinery Co.

591 Lyell Avenue, Rochester, N. Y.

If In Doubt

consult the School Authorities of Buffalo, Jersey City, Memphis, San Francisco, Winnipeg, Rochester and a hundred other cities we could name if space permitted and learn what they think of American



Bossert Schools

Are Warm in Winter and Cool in Summer

We are equipped to furnish any size building on short notice. Prices of same depend on requirements and State Laws—but in every case are the lowest for quality of material supplied. Remember, this is not a cut lumber proposition, and the cost of erecting is a very small item. While not essential, as any unskilled labor can do it, we will, if you desire, arrange to erect all buildings. Buildings can be taken down and re-erected any number of times without marring a single feature.

We have made portable school houses for other people for over 25 years. Now you can buy Bossert School Houses with all our new patents and improvements direct from us and save money for your school board.

Write us full requirements and we will send details of cost of building completely erected.

LOUIS BOSSERT & SONS, Inc.

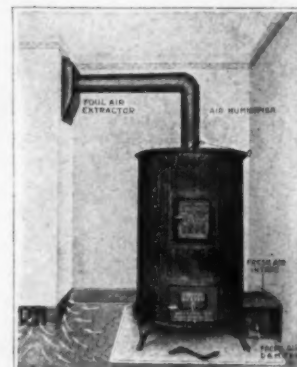
Builders of School Houses for over 25 years.

1323 Grand Street

Brooklyn, N. Y.

The Smith System of Heating and Ventilation

Especially Adapted to Portable Schools.



Gives the most perfect heat distribution and greatest amount of ventilation with the least amount of fuel.

More than 30,000 Schoolrooms are equipped with it.

In use in most of the Leading Cities.

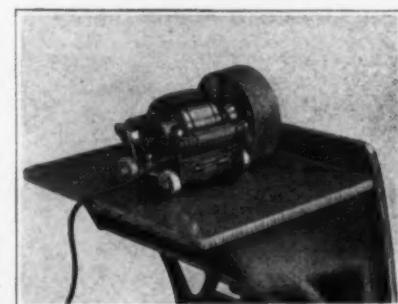
Write for Catalog.

Smith System Heating Company

Minneapolis, Minn.

Soiled Desks Are Not Spoiled Desks

It is not necessary to buy new desks every few years just because the tops are scratched, and the varnish partly worn off. Naturally this makes the desk poor in appearance. An Automatic Electric Surfacing Machine however, will quickly make the desks like new. The little Electric Machine rapidly and cheaply resurfaces your old desk making them like new.



By using a coarse sandpaper first the old varnish is quickly removed, and by finishing with a fine grade the surface is made smooth and attractive.

Free trial offer. Ask about it.

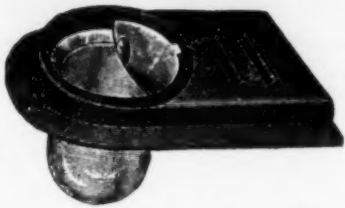
WAYVELL CHAPPELL & CO.

Dept. F, 414 W. Grand Ave.

CHICAGO, ILL. Telephone Superior 6864

U. S. INKWELLS

Equip the desks in your schools with the incomparable U. S. Inkwells — inkwells that will meet the requirements and entire approval of both pupils and teacher.



Pat. Dec. 12, '05. Pat. Jan. 19, '06.

U. S. INKWELLS



Pat. Nov. 14, '11.

are neat in appearance, non-breakable, non-evaporating, dust proof, easy to keep clean, operate silently and will fit perfectly over the various size holes in desks. They have no hinges to break or corks to lose. The first cost is the only cost—they pay for themselves within a short time by the vast saving in ink their installation brings about.

U. S. Inkwells can be readily attached at a trifling cost by your school janitor.

WRITE FOR FREE SAMPLES
TODAY.

U. S. Inkwell Company, Inc.

DES MOINES

MANUFACTURERS

IOWA

Why Pay--?

for WATER in ink? Make your own ink by adding water to—



and save over 70% of your present ink bill.

School Boards thruout the country are now buying their ink in powder form. It is the most practical and economical method. It can be mixed at the school board offices and distributed to the various schools in casks, or distributed in powder form and mixed by the school janitor whenever needed.

INKO COLORS

Blue-black, Black, Red (Carmine),
Green, Purple (Violet).

*Free samples of INKO will be cheerfully
furnished on request.*

**In Writing Please Mention
Your Dealer's Name.**

THE HOWARD CHEMICAL & MFG. COMPANY, Inc.

2104 Fourth Avenue South

Minneapolis, Minn.



COMMERCIAL
ART
AND PERFECT REPRODUCTION

PREMIER
ENGRAVING COMPANY

DESIGNERS MILWAUKEE ENGRAVERS WISCONSIN

*The Problem of Safe and
Sanitary Heating and
Ventilation of School
Wagons is Solved.*



THE MILLER VEHICLE HEATER Does the Work

The above cut shows the Miller Vehicle Heater in use on a modern school wagon under actual winter conditions.

No stove to overturn, no gas or oil to explode, no smoke or poisonous gas to endure. Simply a hot air register in the floor flooding the whole inside of the wagon with warm, pure air drawn from outside.

Disease is now sweeping over the country endangering the lives of young and old alike. The epidemic of Spanish Influenza finds an inviting field for its deadly work in crowds, in damp, cold atmosphere, in poor ventilation.

The Miller Vehicle Heater, like mingled sunshine and fresh air, dispels dampness and disease, affords warmth and comfort, and renders safe and sanitary the journey to and from school.

Every parent has a moral right to demand and it is the sacred duty of school officers to supply Miller Vehicle Heaters for school wagons.

We manufacture and sell Heaters only and sell to wagon manufacturers, dealers and school authorities.

Send for Prices.

MILLER VEHICLE HEATER CO.

Crawfordsville, Ind., U. S. A.

Directory of Teachers' Agencies

NEW YORK WANTS YOU

On April 24 the legislature voted **THIRTY MILLION DOLLARS** for additions to the present salaries of school teachers, giving

\$400 TO \$600 INCREASE

next year over the large salaries this year. This makes New York state salaries the largest in the world. New York wants 2,000 teachers from other states fit to earn them. Liberal recognition of credentials. Write at once.

SCHOOL BULLETIN AGENCY, C. W. Bardeen, Syracuse, N. Y.

The Pratt Teachers' Agency

No. 70 FIFTH AVENUE, NEW YORK

RECEIVES calls at all seasons for college and normal graduates, specialists, and other teachers in colleges, public and private schools, in all parts of the country. Advises parents about schools.

WM. O. PRATT, Manager

NORTHERN TEACHERS' AGENCY

650 Northern Pacific Avenue
FARGO, N. D.

A demand for teachers in this northwest is constant. Very good wages are being offered. You should investigate. Write today for further information.

W. L. STOCKWELL, President
8 years State Supt.

MRS. MATTIE M. DAVIS, Manager
14 years County Supt.

Boyer's TEACHERS' Agency

Established to
Solve the
"TEACHER
PROBLEM"

10600 Euclid Avenue, Cleveland, Ohio

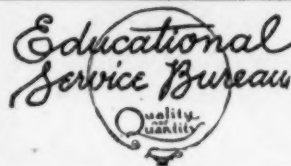
Write for Information S. R. BOYER, Manager Telephone: Garfield 9323

ALLIED TEACHERS' AGENCIES

H. R. SOPER, Proprietor 505 Fifth Avenue (42nd St.), New York.
"QUALITY and SERVICE." A Comprehensive Organization.

Personal attention given to all vacancies by practical school men. No charge to school officials.

BRANCH OFFICES: Rochester, N. Y., 643 Park Ave., H. C. Reeves, Manager.
Chicago, Ill., 122 South Michigan Ave., E. O. Jones, Manager.



Three Classes of Teachers Who Should Enroll in Our Agency

- 1—Those who desire a better locality
- 2—Those who want a better salary
- 3—Those who possess average or more than average ability.

Write Manager E. A. Freeman for booklet.
EDUCATIONAL SERVICE BUREAU
Handicraft Bldg., 89 So. Tenth St.
Minneapolis, Minnesota

WANTED—POSITIONS FOR TEACHERS

Also teachers for positions. Teachers furnished free, full records of candidates. Write us your needs. OSWEGO TEACHERS' AGENCY, Box B, Oswego, N. Y.

INTERSTATE TEACHERS' BUREAU

Organized 1901. CONSERVATIVE MANAGEMENT. INTELLIGENT EFFORT.
ENJOYS CONFIDENCE OF INSTRUCTORS AND OFFICIALS.

PARKER

TEACHERS' AGENCY

Eighteen Years of Real Service
to School Boards

12 South Carroll Street
MADISON, WISCONSIN

Teachers Wanted: For High Schools—Salaries for men from \$1500 to \$2800; for women \$1000 to \$2200; Grade Teachers—Either Normal School or College Graduates \$100 to \$220 per month. We represent the best paying schools in the country who have long been our clients. Send for free booklet. THE ALBERT TEACHERS' AGENCY, 25 E. Jackson Boulevard, Chicago. Other Offices—New York, Denver, Spokane.

The Acme Teachers' Agency

Uses unique methods
that eliminate trouble and
worry in selecting teachers.

Make your calls for teachers on its Manager, A. C. Whitehead, 1131 Healey Bldg., Atlanta, Ga.

FISK TEACHERS' AGENCY

BIRMINGHAM OFFICE
R. A. CLAYTON, Manager
Boston, New York, Pittsburg, Chicago, Memphis, Birmingham, Denver, Portland, Berkeley, Los Angeles

Subscribers' Free Service Department

We invite all our readers to ask questions of any kind on any problem of school administration, and we promise to answer them fully and promptly. If we must, we shall investigate specially, charging the trouble and expense to our editorial appropriation. If you are interested in the purchase of any of the items listed below, or if you want catalogs for your files, do not hesitate to check this list and mail it to the address given below:

Adjustable Window Shades.....
Agricultural Apparatus.....
Air School Furniture.....
Air Washers.....
Art Supplies.....
Athletic Field Apparatus.....
Auditorium—Chairs.....
Lighting.....
Scenery.....
Batteries—Storage.....
Bells.....
Biology Supplies.....
Blackboards—Composition.....
Slate.....
Bookbinding Supplies.....
Bookcases—Sectional.....
Book Covers.....
Bronze Tablets.....
Builders' Hardware.....
Caps and Gowns.....
Chairs.....
Kindergarten.....
Charts—Geographical.....
Color.....
Class Pins.....
Clock Systems.....
Secondary.....
Program.....
Costumes for Plays.....
Crayons.....
Crayon Troughs.....
Deafening Quilt.....
Deodorizers.....
Desks—Pupils.....
Teachers.....
Dictionary Holders.....

Diplomas.....
Disinfectants.....
Display Fixtures.....
Domestic Science Equipment.....
Benches.....
Stoves.....
Door Mats.....
Drawing Supplies.....
Tables.....
Drinking Fountains.....
Duplicators.....
Dusters (Sanitary).....
Electrical Supplies.....
Apparatus.....
Erasers.....
Eraser Cleaners.....
Fences.....
Filing Cabinets.....
Fire Alarms.....
Fire Escapes.....
First Aid Cabinets.....
Flags.....
Floor Dressing.....
Flooring.....
Forges.....
Fumigators.....
Furniture.....
Adjustable.....
Movable.....
Steel.....
Globes.....
Gymnasium Apparatus.....
Heaters (Rural School).....
Heating Apparatus.....
Industrial Collections.....
Inks.....
Inkwells.....
Janitor Supplies.....

Kindergarten Supplies.....
Laboratory Furniture.....
Laboratory Shade Hoists.....
Lathes.....
Library Shelving.....
Lighting Equipment.....
Liquid Soap.....
Lockers.....
Loose-Leaf Books.....
Manual Training Supplies.....
Benches.....
Maps.....
Metal Working Materials.....
Machinery.....
Mimeographs.....
Motion Picture Films.....
Machines.....
Natural Science Apparatus.....
Natural Science Cabinets.....
Oil Color Materials.....
Paints and Varnishes.....
Paper.....
Paper Towels.....
Partitions.....
Pencils.....
Pencil Sharpeners.....
Pens.....
Phonographs.....
Physical Geography Supplies.....
Pianos.....
Pictures.....
Plaster Casts.....
Playground Apparatus.....
Plumbing Fixtures.....
Portable Schoolhouses.....
Printing Supplies.....
Program Clocks.....
Projection Lanterns.....
Raffia and Reed.....
Record Systems.....
Roofing.....
Rubber Matting.....
Rulers.....
Safe Cabinets.....
Sanitary Appliances.....

Scientific Apparatus.....
Scissors.....
Sewage Disposal.....
Shelving.....
Skylight Operators.....
Slatting Liquid.....
Stage Equipment.....
Lighting.....
Scenery.....
Stationery.....
Statuary.....
Stenciling Materials.....
Sweeping Compounds.....
Tables.....
Drafting.....
Kindergarten.....
Talking Machines.....
Telephones.....
Temperature Regulation.....
Terra Cotta.....
Toilet Paper.....
Tools.....
Light Woodworking.....
Leather Work.....
Jewelry Work.....
Metal Work.....
Typewriters.....
Vacuum Cleaning Systems.....
Ventilators.....
Vises.....
Wagons.....
Wall Burlaps.....
Wall Paints.....
Waste Baskets.....
Water Color Materials.....
Water Pressure Systems.....
Water Purifiers.....
Weather Strips.....
Weaving Implements.....
Window Shade Adjusters.....
Window Ventilators.....
Wire Window Guards.....
Woodworking Machinery.....
Weaving Yarns.....

Additional Wants

AMERICAN SCHOOL BOARD JOURNAL, Milwaukee, Wis.

Gentlemen—We are interested in the items as checked above. If you will place us in touch promptly with manufacturers you will be of help to

(Signed)

City.....
Official.....
Title.....

State.....
Bids.....
Wanted by..... 192.....

Directory of Teachers' Agencies

Society for Vocational Education, February 24 to '26
Department of Superintendence, February 28 to March 3

During these meetings at Atlantic City, we shall have a conveniently located office on Young's Million Dollar Pier, the official headquarters, where we shall be glad to have you call. If you will inform us beforehand as to the teachers you may need, either for emergency vacancies or for next year, we shall probably be able to arrange to have candidates meet you in Atlantic City, New York, Philadelphia, or Washington.

FISK TEACHERS AGENCY

E. E. Olp, Manager

28 E. Jackson Blvd., Chicago

THE TEACHERS' SERVICE BUREAU

OPPORTUNITY HAS NO HAMMER BUT NEVER-THE-LESS IS KNOCKING.
YOUR OPPORTUNITY IS AT HAND. GRASP IT!

TEACHER, SUPERINTENDENT, SCHOOL BOARD
CALL OR WRITE

TEACHERS' SERVICE BUREAU
2142 MARSHALL BOULEVARD, CHICAGO, ILLINOIS.

The day of the teacher is coming! Our purpose is to hasten its arrival.
TEACHERS—SUPERINTENDENTS—PROFESSORS
Have you registered with us? Have you listed your vacancies?
Our Registration Bureau is ABSOLUTELY FREE.
Let us help you:—Write us. Wire us. Phone us. Come to see us. Our Motto:
"Service First." Our address:
SOUTHERN SCHOOL-BOOK DEPOSITORY, INC.
Atlanta, Georgia. Distributors of School and College text books.

Albany Teachers' Agency, Inc.

81 CHAPEL STREET, ALBANY, N. Y.

Provides Schools and Colleges with Competent Teachers.

Assists Teachers in Securing Positions:

HARLAN P. FRENCH, President

W. W. ANDREWS, Secretary

Schermerhorn Teachers' Agency

Established 1855

CHARLES W. MULFORD, Prop.

366 Fifth Ave., between 34th and 35th Streets, NEW YORK

A SUPERIOR AGENCY FOR SUPERIOR PEOPLE. WE REGISTER ONLY
RELIABLE CANDIDATES. SERVICES FREE TO SCHOOL OFFICIALS.

Teachers, Principals, Superintendents! Come to Headquarters
Write Today for "The Road to Good Positions" and Enrollment Card

UNEXCELLED SERVICE
FREE ENROLLMENT
In All Offices

ROCKY MT. TEACHERS' AGENCY
410 U.S. NAT. BANK BLDG. DENVER, COLO.

WM. RUFFER, A.M., - - - Manager
W. S. FREY, B.S., - - - Assistant Manager
W. B. MOONEY, A.M. Assistant Manager
and FIELD REPRESENTATIVE

Other Offices:

PORTLAND, ORE. LOS ANGELES
N. W. Bank Bldg. Chamber of Commerce
MINNEAPOLIS KANSAS CITY, MO
Lumber Exchange CHICAGO
Largest Teachers' Agency in the West

"THE AGENCY OF QUICK SERVICE AND EFFICIENCY"

WESTERN TEACHERS' EXCHANGE

DENVER, COLORADO CHICAGO, ILLINOIS MINNEAPOLIS, MINNESOTA BERKELEY, CALIFORNIA
Gas & Electric Building Peoples Gas Building The Plymouth Building Berkeley Bank Building

We Render Efficient Service To School Boards and Teachers
The Only Agency That Maintains Educational Men Constantly in the Field

HAROLD DUNLOP MELLOR

FEBRUARY 11, 1894 JANUARY 22, 1918

VOLUNTEER MEMBER OF HARJES-NORTON CORPS
SECTION 7 AMERICAN RED CROSS AMBULANCES IN FRANCE
ENTERED U.S. AVIATION SERVICE
JANUARY 2, 1918

Bronze Tablets

In Honor of the Men Who Fought in the World War
Bronze Memorial Tablets, etc.

All to Special Design. Designs and Estimates Free.
Send for Free Illustrated Booklet.

Jno. Williams, Inc., Bronze Foundry

OFFICE: 559 WEST 27th ST., NEW YORK

We Specialize in Brains

Character, Personality, Teaching Power and Service. The past year we advertised in ONE HUNDRED SEVENTY-FIVE Educational papers—more than all other Agencies combined. Result is the largest SELECT list of LIVE teachers ever assembled. Our ninth year of recommending only when asked to do so by employers direct. Owing to our Professional standards, more than two-thirds of all the higher institutions, as well as the best Secondary schools in Forty-three states and four foreign countries, used our service the past season. Two thousand square feet of first floor office room, with every known equipment for doing efficient work, INCLUDING A FINDEX BUILT TO ORDER, enables us to fill vacancies from Kindergarten to University with the BEST TEACHERS, many of whom have been visited and interviewed by our representatives direct.

A Distinct Service for Educators Who Appreciate Ethical Standards.

THE WESTERN REFERENCE & BOND ASSOCIATION

Department of Education, 699 Journal Building
KANSAS CITY, MISSOURI

Teachers
Needed in the
Southwest

High School Salaries,
\$1500 to \$3000;
Grade Salaries,
\$1200 to \$2000

The Phoenix Teachers' Agency

TORRANCE McRUER, Mgr.
GLENDALE, ARIZONA, BOX 117

The agency of the Southwest for progressive teachers. Courteous attention given to all. Your own ability, plus the efficient service of this agency, will put you ahead. Enroll now.

CENTRAL EDUCATIONAL BUREAU

A RAPIDLY GROWING AGENCY IN THE CENTER
OF THE EDUCATIONAL FIELD.

RECOMMENDS capable teachers for school and college positions. Considers official vacancies only. Schools wanting teachers and teachers wanting positions should write to us. WE CAN BRING YOU TOGETHER.

W. J. HAWKINS, Manager.

Metropolitan Bldg., St. Louis, Mo.

MISSOURI VALLEY TEACHERS' AGENCY

Free membership to teachers. Free services to school officials. We recommend only when asked by school officials. For the protection of our members we nominate only one candidate for a vacancy. Write or wire for a membership blank. Address

MISSOURI VALLEY TEACHERS' AGENCY

KANSAS CITY, MISSOURI, and DENVER, COLORADO.

SOUTHERN TEACHERS' AGENCY

W. H. JONES, Manager

COVERS THE SOUTH

COLUMBIA, S. C.

CHATTANOOGA, TENN.

RICHMOND, VA.

COLLEGE GRADUATES Recommended Exclusively

—except in vocational fields. No elementary school positions. Any subject from high school up. Leading bureau for teachers of Commercial, Industrial, and Physical Education. 19th year. Covers all states. Tell us your needs.

SPECIALISTS' EDUCATIONAL BUREAU

ROBERT A. GRANT, Pres.,
Odeon Bldg., St. Louis, Mo.
Branch Office: BERKELEY, CALIF.



Honor
Rolls

Memorial
Tablets

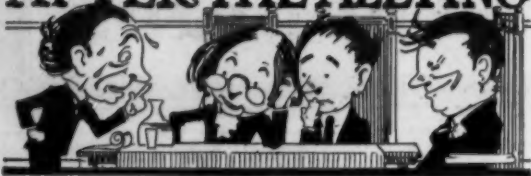
In Bronze



Modeled, Cast and Finished by

Albert Russell and Sons Co. 125 Merrimack St. Newburyport, Mass.

AFTER THE MEETING



A Young Financier.

A pretty young schoolmarm who teaches a first-grade class in a school of the northwest section of the city is telling a funny story on herself that happened just before the close of the term. She had some visitors on the afternoon in question, and thought she would show them what a good class she had. Calling on a bright little fellow at the rear of the room, she said to him: "Johnny, if I gave you two cents and your father gave you three cents, how much would you have?"

"Seven," promptly replied Johnny. The teacher blushed painfully, but thought she would try again: "You can't have understood me, Johnny. Now listen, and I will repeat the question. If I gave you two cents and your father gave you three, how much would you have?"

"Seven," said Johnny again, and with the same promptness.

"I am surprised at you, Johnny," said the teacher. "How on earth would you have seven?" "I got two in me pocket," said Johnny.—*Chicago News.*

A Chemical Change.

The professor was showing a friend round his chemical laboratory. "What has become of Jim Fillbottle?" the friend asked. "Wasn't he studying with the class last year?"

"Ah, yes," replied the professor. "Fillbottle, poor fellow! A fine student, but absentminded in the use of chemicals—very. That slight discoloration on the ceiling—notice it?"

"Yes."

"That's Fillbottle."

Too Tender-Hearted.

"I understand that your daughter is going to take music lessons."

"Not exactly," replied Farmer Cornstossel. "We haven't the heart to tell her that her voice sounds terrible, so we're goin' to hire a regular teacher to do it."

Open Shop.

A farmer girl teacher in an Illinois mining town where there were many foreign pupils was trying to drill into the young minds the distinction between a state and a territory. When the idea appeared to have soaked in, she inquired:

"Now, what do you call the ones that are not in the union?"

The brightest boy put up his hand.

"Scabs!"

Located.

The Woman Who Saw was visiting one of the public schools. A class recently introduced to the wonders of geography was revelling in the description of London furnished by the teacher—and a set of pictures.

One of the pictures was of the Tower of London. A boy at the back of the room, whose ability to reach astounding conclusions may some day make him king of financiers, looked at this picture.

Then he asked, "Is the Tower of Babel in England, too?"

"Oh, no," quickly replied a more sophisticated youth, "the Tower of Babel is in the Bible."



Teacher—Now, can anyone tell Nellie what a vacuum is?
"I can, teacher! It's what you clean a rug with."

Historical.

Miss Smith, the teacher, was hearing the history class. The pupils seemed unusually dull.

"Now," she said. "Mary followed Edward VI, didn't she?"

"Yes, ma'am," replied a little girl.

"And now, who followed Mary?" asked the teacher hopefully. All were silent for a moment, then Elsie raised her hand.

"Yes, Elsie?" queried the teacher. "Who followed Mary?"

"Her little lamb," said Elsie triumphantly.—*Harper's Monthly.*

Out of the Mouths of Babies.

A Brooklyn school teacher wrote on the black-board during the final geography examinations: "What are the principal MTS. in America?"

One of the little girls answered, "Beef, lamb, and pork!"—*Brooklyn Home News.*

A teacher had been instructing the children on what constituted a healthy diet. She then told them of the various health bulletins issued by the government. Then turning to the class she asked: "Now to what department of our government would you write to secure these?" Please Ma'am," one bright boy responded, "I should think it would be the Department of the Interior."

A little boy in the kindergarten was trying to explain what a caterpillar looked like. "Him's long and slim", he said, "Him's just like a muff out walking."

Not Successful.

A Chicago teacher who is very much interested in the welfare of her classes, last summer made an experiment which has puzzled her considerably. In her class last year were twins who were weak in English. As a means of causing them to write she elicited a promise from them to write her a semi-weekly letter during the vacation season. The children kept their promise but with widely different results. The little girl wrote pages describing the farm where she and her brother were enjoying themselves. She told of the flowers, the farm animals, etc. The boy wrote also but his letters were rarely longer than three lines. The following is typical: "There is a bully creek running thru Aunt Mary's farm. I go swimming in it every afternoon at four o'clock. The clock is striking now. Goodbye."

Fate's Perversity.

She: Did your two college mates marry well?

He: I'm afraid not. One got a girl who can cook and insists on playing the piano; the other got one who knows how to play the piano and insists on cooking.—*Boston Transcript.*

Pardon me, madam! Do you belong to the English teachers' union?

No. I am a member of the modern language teachers' union.

Well, under the rules, you can't be allowed to teach a class in English. You must stop at once!

A teacher in a public school was instructing a youthful class in English when she paused and turned to a small boy named Jimmy Brown.

"James," said she, "write on the board, 'Richard can ride the mule if he wants to.'"

This Jimmy proceeded to do to the satisfaction of all concerned.

"Now, then," continued the teacher when Jimmy had returned to his place, "can you find a better form for that sentence?"

"Yes, ma'am," was the prompt response of Jimmy. "Richard can ride the mule if the mule wants him to."

BUYERS' NEWS COLUMN

A NEW FORD FILM.

The Ford Educational Weekly has recently completed a film entitled "The Alligator Hunt." It is entirely educational and shows the life of the alligator from the hatching of the eggs to the death of a man-eater. The film is available from Fitzpatrick & McElroy, Chicago.

New Records

The Victor Talking Machine Company has announced a double record containing two recitations especially adapted for children in the primary grades. The first of these is entitled "The Three Little Pigs" and is taken from an English folk tale. The second is entitled "The Duel" and is one of Eugene Field's delightful childhood lyrics. It relates the story of the terrible fight between the gingham dog and the calico cat. The record may be had from any Victor dealer.

Her Version.

The pupils of the public school at Scotch Plains, N. J., were recently asked to write a version of "Barbara Frietich" after one reading, without comment on or explanation of the poem by the teacher. Here was the result from the pen of one of the girls:

Once upon a time there was a lady named Barbara Frietich. She was a good old woman and she wrote a poem. The poem is by John G. Whittier. She was one who wrote poems of many people.

Up and down the meadows that are rich with beautiful corn and there it was on September morn when it was a little cold. There was also chestnuts that had ripen and burst open near Frederick stand. The next day Frederick went outside to see the chestnuts on the ground and thought for a while. Then he took a broom and swept them up.

Frederick went to the garden and saw beautiful apple and peach trees stanling before him and after he took some of them

His mother said, "Do not take those apples."

Helping Mother Out.

The day after Christmas the teacher met little James, who tho only six years old is a boy of advanced ideas, and inquired:

"Did you have a Santa Clats at your house, dear?"

"Yes," he replied.

"You believe in Santa Claus, don't you, James?"

"No," answered the lad, "and I don't think sister does, but we didn't want to disappoint mother."—*Exchange.*

A Word in Season.

The Greek professor was detained at the door of his classroom and on entering found the motto, "Better late than never," in large letters on the board. By the aid of a piece of chalk he quickly changed the motto to suit the needs of the mischievous pupil who had placed it there:

"Better late than never knowing the lesson."

"Their pay is shockingly small for some of our public officials," said the broad-minded man.

"Yes," answered the cynic; "but it averages up. Some of the public officials are shockingly small for their pay."—*Washington Star.*

Is this ever true of superintendents?

Teacher Shortage Explained.

Here is a recent problem in a teacher's examination: "If antogeny invariably ingeminates phylogeny circumscribe the word giving the location of the Ourcq; if not, underscore the word that locates the Mandible." Perhaps it isn't the inadequate salaries after all that is responsible for the shortage of teachers.—*Oregon Journal.*

School Goods Directory

ADJUSTABLE WINDOW SHADES

Aeroshade Company
Draper Shade Co., L. O.
Steele Mfg. Co., Oliver C.
Walger Awning Co.

AIR CONDITIONING APPARATUS

American Blower Co.
Moline Heat

ASH HOISTS

Gillis & Geoghegan
Payne Company, F. S.

AUDITORIUM SEATING

American Seating Co.
Empire Seating Co.
Heywood Bros. & Wakefield Co.
Kundtz Company, The Theodor
N. J. School Furniture Co.
Peabody School Furniture Co.

BLACKBOARDS—COMPOSITION

Beaver Board Companies
N. Y. Silicate Book Slate Co.
Rowles Co., E. W. A.
Weber Costello Co.

BLACKBOARDS—NATURAL SLATE

Keenan Structural Slate Co.
Natural Slate Blackboard Co.
Penna. Structural Slate Co.

BLEACHERS

Leavitt Mfg. Company

BOOK COVERS

Holden Patent Book Cover Co.
Peckham, Little & Co.

BOOK LEATHER

Keratol Company

BOOK PUBLISHERS

American Book Company
Barnes Co., A. S.
Educational Publishing Co.
Ginn & Company
Gregg Publishing Co.
Heath & Co., D. C.
Hinds, Hayden & Eldredge, Inc.
Houghton, Mifflin Co.
Lippincott Co., J. B.
Longmans, Green & Co.
Newson & Company
Palmer Co., A. N.
Silver, Burdett & Co.
World Book Company

BULLETIN BOARDS

Paddock Cork Company

BRUSHES

Lewis, Samuel
Palmer Company, The
Robertson Products Co., Theo. B.

BUILDING MATERIALS

Asbestos Buildings Co.
Indiana Limestone Quarriesmen's Assn.
National Terra Cotta Company

CAFETERIA EQUIPMENT

Pick & Company, Albert
Sani Products Co., The

CHARTS

Nystrom & Co., A. J.
Weber Costello Company

CHEMICALS

Central Scientific Co.
Chicago Apparatus Co.

CHEMICAL CLOSETS

Chemical Toilet Corporation
Standard Steel Corp.

CLOCKS

Standard Electric Time Co.

CRAYONS

American Crayon Co.
Binney & Smith
Dixon Crucible Co., Joseph
National Crayon Co.
Peckham, Little & Co.
Rowles Co., E. W. A.
Weber Costello Co.

DESK SURFACING MACHINE

Wayvill, Chappell & Co.

DESK RENOVATORS

National Wood Renovating Co.

DICTIONARY STANDS

Union School Furnishing Co.

DIPLOMAS

Educational Supplies Co.
Metropolitan Supply Company

DISINFECTANTS

Lewis, Samuel
Palmer Company, The
Robertson Products Co., Theo. B.

DOMESTIC SCIENCE EQUIPMENT

Christiansen, C.
Federal Equipment Co.
Kewanee Mfg. Company
Mutschler Brothers Co.
Peterson & Co., Leonard
Pick & Co., Albert
Sheldon & Co., E. H.

DOOR CHECKS

Norton Door Closer Co.
Sargent & Company

DRAFTING ROOM FURNITURE

Christiansen, C.
Sheldon & Co., E. H.

DRINKING FOUNTAINS

Imperial Brass Mfg. Company
Nelson Mfg. Company, N. O.
Rundle-Spence Mfg. Company

EDUCATIONAL FILMS

Fitzpatrick & McElroy

ERASERS

Palmer Company, The
Rowles Company, E. W. A.
Weber Costello Co.

ERASER CLEANERS

National Wood Renovating Co.
Weber Costello Company

FILING CASES

Berger Mfg. Company, The

FIRE ESCAPES—SPIRAL

Dow Wire & Iron Works
Standard Conveyor Company

FIRE EXIT LATCHES

Sargent & Company
Smith Hardware Co., F. F.
Van Kannel Revolving Door Co.
Vonnegut Hardware Co.

FIRE EXTINGUISHERS

Pyrene Manufacturing Co.

FIRE PROOF DOORS

Dahlstrom Metallic Door Co.

FIRST AID CABINETS

Johnson & Johnson

FIREPROOFING MATERIALS

Asbestos Buildings Co.

FLAGS

Annin & Company
Chicago Canvas Goods & Flag Co.

FLAG POLES

Chicago Canvas Goods & Flag Co.
Nelson Mfg. Co., N. O.
Newark Steel Post Co.

FLOOR CLEANING DEVICES

Domestic Labor Savings Corp.
Kent Vacuum Cleaner Co.

FOLDING PARTITIONS

Wilson Corp., Jas. G.

FURNITURE

American Seating Co.
Cleveland Seating Co.
Columbia School Equipment Works
Columbia School Supply Company
Economy Drawing Table & Mfg. Co.
Empire Seating Co.
Heywood Bros. & Wakefield Co.
Inner Braced Seating Co.
Kundtz Company, The Theodor
Langslow, Fowler Company
Mutschler Brothers Co.
N. J. School Furniture Co.
Peabody School Furniture Co.
Rowles Co., E. W. A.
Stafford Mfg. Company, E. H.
Standard School Equipment Co.

GLOBES

Nystrom & Co., A. J.
Weber Costello Co.

GRAPHOPHONES

Columbia Graphophone Co.

GYMNASIUM APPARATUS

Medart Mfg. Co., Fred
Narragansett Machine Company

HEATERS

Smith System Heating Co.
Virginia School Supply Company

HEATING SYSTEMS

Dunham Company, O. A.
Moline Heat

INK

Commercial Paste Company
Howard Chemical & Mfg. Co.
Kvale Company, John
Rowles Co., E. W. A.

INK WELLS

Squires Inkwell Company
U. S. Inkwell Company

JANITORS' SUPPLIES

Lewis, Samuel
Palmer Company, The
Robertson Products Co., Theo. B.

KINDERGARTEN SUPPLIES

Charles Company, Thos.

LABORATORY FURNITURE

Columbia School Supply Co.
Kewanee Mfg. Company
Peterson & Co., Leonard
Sheldon & Co., E. H.

LABORATORY SUPPLIES

Central Scientific Co.
Chicago Apparatus Co.
Rowles Company, E. W. A.

LANTERN SLIDES

Keystone View Company
McIntosh Stereopticon Co.
Underwood & Underwood

LIGHTING FIXTURES

Beardslee, Chandler Mfg. Co.

LIQUE FLOOR HARDENERS

Sonneborn Sons, L.

LIQUID SOAP

Imperial Brass Mfg. Co.
Robertson Products Co.

LOCKERS

Armor Clad Mfg. Company
Berger Mfg. Company, The
Durand Steel Locker Co.
Federal Steel Fixture Co.
Medart Mfg. Co., Fred
Narragansett Machine Company

LOCKS—KEYLESS

Miller Keyless Lock Co., J. B.

MACHINERY

American Woodworking Machinery Co.
Oliver Machinery Company
MANUAL TRAINING BENCHES
Columbia School Supply Co.
Oliver Machinery Co.
Sheldon & Co., E. H.

MAPS

Nystrom & Company, A. J.
Weber Costello Company

MEMORIAL TABLETS

Russell & Sons Co., Albert
Williams, Inc., John

METAL LATHE

Berger Mfg. Company, The

MICROSCOPES

Bausch & Lomb Optical Co.
Spencer Lens Company

MOTION PICTURE MACHINES

Enterprise Optical Mfg. Co.
Fitzpatrick & McElroy

United Projector & Film Co.
Victor Animatograph Co.

PAINTS

Hockaday Company, The

PAPER TOWELS

A. P. W. Paper Company
Holden Patent Book Cover Co.
Northern Paper Mills
Palmer Company, The
Robertson Products Co., Theo. B.

PAPER TOWEL FIXTURES

Palmer Company, The

PASTE

American Crayon Company
Commercial Paste Company
Prang Company, The

PENCILS

American Crayon Co.
Dixon Crucible Co.

PIANOS

Jackson Piano Co.
Steger & Sons Piano Mfg. Co.

PLAYER PIANOS

Steger & Sons Piano Mfg. Co.

PLAYGROUND APPARATUS

Chicago Canvas Goods & Flag Co.
Hill-Standard Company

Medart Mfg. Co., Fred
Woodstock Mfg. Co., Inc.

PLUMBING FIXTURES

Brunswick-Balke-Collender Co.
Clow & Sons, James B.
Hoffmann & Billings Mfg. Co.
Imperial Brass Mfg. Company
Nelson Mfg. Company, N. O.
Rundle-Spence Mfg. Company
Speakman Co.

PORTABLE SCHOOLHOUSES

Alexander Lumber Company
American Portable House Co.
Armstrong Co., The
Bossert & Sons, Louis
Mershon & Morley
Togan-Stiles Company, The

PRINTERS

Conkey Company, W. B.

PROGRAM CLOCKS

Landis Eng. & Mfg. Company
Standard Electric Time Co.
Thomas Clock Co., Seth.
Time Systems Co.

PROJECTION LANTERNS

Bausch & Lomb Optical Co.
Enterprise Optical Mfg. Co.
McIntosh Stereopticon Co.
Spencer Lens Co.
Victor Animatograph Co.

RECORD SYSTEMS

Educational Supplies Co.
Metropolitan Supply Co.
Williams & Sons, Inc., C. F.

REINFORCED STEEL

Berger Mfg. Company, The

SCALES

Chicago Scale Company
Continental Scale Works

SCENERY

Twinn City Scenic Co.

SCIENTIFIC APPARATUS

Central Scientific Company
Chicago Apparatus Company
Rowles Company, E. W. A.
Schaar & Company

SHOWERS

Hoffmann & Billings Mfg. Co.
Speakman Co.

SOAPS

Palmer Company, The

SPRINKLER SYSTEMS

Grinnell Company, The

STATIONERS

Blair Company, J. C.

SWEEPING COMPOUNDS

Lewis, Samuel
Robertson Products Co., Theo. B.

TALKING MACHINES

Victor Talking Machine Co.

TEMPERATURE REGULATION

Johnson Service Company

THERMOMETERS

Wilder-Pike Thermometer Company

TOILET PAPER

A. P. W. Paper Company
Northern Paper Mills
Palmer Company, The
Robertson Products Co., Theo. B.

TOILET PARTITIONS

Vitrolite Company, The

TOILET ROOM FIXTURES

Pick & Company, Albert

TYPEWRITERS

Underwood Typewriter Company

VACUUM CLEANERS

Kent Vacuum Cleaner Co.
Domestic Labor Saving Corp.

VACUUM CLEANING SYSTEMS

Spencer Turbine Company, The

VENTILATING APPARATUS

American Blower Company

VENTILATORS

Peerless Unit Ventilation Co., Inc.

VENTILATING SYSTEMS

Moline Heat
Peerless Unit Ventilation Co., Inc.

WAGONS

Wayne Works, The

WAGON HEATERS

Miller Vehicle Heater Co.

WAINSCOTING

Vitrolite Company, The

WASTE PAPER BASKETS

American Vulcanized Fibre Co.

WATER COLORS

American Crayon Co.

WAX CRAYONS

American Crayon Co.

WEATHERSTRIPS

Chamberlin Metal Weatherstrip Co.

WINDOWS—ADJUSTABLE

Austral Window Co.
Kawneer Mfg. Company

WINDOW SHADES

Hartshorn Co., Stewart
Draper Shade Co., Luther O.
Whitcomb & Boyce

WIRE WINDOW GUARDS

Draper Shade Co., Luther O.

WOODWORKING MACHINERY

American Woodworking Machinery Co.
Oliver Machinery Co.
Sheldon & Company, E. H.

REFERENCE INDEX

| | Page | | Page |
|-----------------------------------|------|---|-----------|
| Aeroshade Company | 108 | Hartshorn Co., Stewart | 123 |
| A. P. W. Paper Company | 13 | Heath & Co., D. C. | 111 |
| Alexander Lumber Company | 67 | Heywood Bros. & Wakefield Co. | 104 |
| American Blower Co. | 3 | Hill-Standard Co. | 101 |
| American Book Co. | 112 | Hinds, Hayden & Eldredge, Inc. | 112 |
| American Crayon Co. | 125 | Hockaday Co., The | 77 |
| American Manikin Company | 123 | Hoffmann & Billings Mfg. Co. | 96 |
| American Portable House Co. | 6 | Holden Patent Book Cover Co. | 114 |
| American Seating Co. | 21 | Howard Chemical & Mfg. Co. | 131 |
| American Vulcanized Fibre Co. | 126 | Imperial Brass Mfg. Co. | 84 |
| American Woodworking Mach. Co. | 130 | Indiana Limestone Quarriesmen's Association | 65 |
| Annin & Co. | 129 | Inner Braced Seating Co. | 19 |
| Armor Clad Mfg. Co., The | 126 | Jackson Piano Company, 3rd Cover | 101 |
| Armstrong Co., The | 130 | Johnson & Johnson | 98 |
| Asbestos Buildings Co. | 97 | Johnson Service Company | 86 |
| Austral Window Co., 4th Cover | 97 | Kawneer Mfg. Co. | 9 |
| Barnes Co., A. S. | 115 | Keenan Struct. Slate Co. | 64 |
| Bausch & Lomb Optical Co. | 119 | Kent Vacuum Cleaner Co. | 14 |
| Beardslee Chandler Mfg. Co. | 73 | Keratol Company | 116 |
| Beaver Board Companies | 27 | Kewanee Mfg. Company, 102 & 117 | 117 |
| Berger Mfg. Company | 2 | Keystone View Co. | 119 |
| Binney & Smith Co. | 127 | Kundtz Company, The Theodor | 104 |
| Blair Company, J. C. | 115 | Kvale Co., John | 129 |
| Bossert & Sons, Louis | 130 | Landis Eng. & Mfg. Co. | 129 |
| Brunswick-Balke-Collender Co. | 93 | Langslow, Fowler Co. | 29 |
| Central Scientific Co. | 123 | Leavitt Manufacturing Co. | 101 |
| Chamberlin Metal Weatherstrip Co. | 5 | Lewis, Samuel | 126 |
| Charles Co., Thos. | 123 | Lippincott Company, J. B. | 111 |
| Chemical Toilet Corp. | 94 | Longmans, Green & Co. | 111 |
| Chicago Apparatus Company | 99 | McIntosh Stereopticon Co. | 120 |
| Chicago Canvas Goods & Flag Co. | 128 | Medart Mfg. Co., Fred | 107 |
| Chicago Scale Co. | 75 | Mershon & Morley | 107 |
| Christiansen, C. | 102 | Metropolitan Supply Co. | 12 |
| Cleveland Seating Co. | 102 | J. B. Miller Keyless Lock Co. | 127 |
| Clow & Sons, James B. | 87 | The | 29 |
| Columbia Graphophone Co. | 71 | Miller Vehicle Heater Co. | 131 |
| Columbia School Equip. Works | 104 | Moline Heat, The | 4 |
| Columbia School Supply Co. | 106 | Mutschler Bros. Co. | 22 |
| Commercial Paste Company | 124 | Narragansett Machine Co. | 72 |
| Conkey Company, W. B. | 30 | National Crayon Co. | 128 |
| Continental Scale Works | 76 | National School Supply Assn. | 24 |
| Dahlstrom Metallic Door Co. | 82 | National Terra Cotta Co., 2nd Cover | 100 |
| Dixon Crucible Co., Jos. | 127 | National Wood Renovating Co. | 18 and 28 |

Von Duprin

Self-Releasing Fire Exit Latches

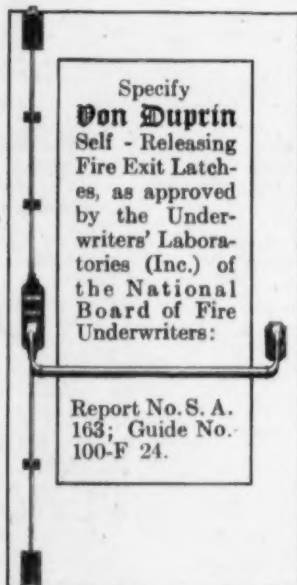
M O R A L E

Von Duprin Self-Releasing Fire Exit Latches make for better morale—for that calm, ready-for-anything state of mind which marks the good scholar.

They cause both scholars and teachers to realize that everything possible has been done for their safety, which is a mighty good reason for installing Von Duprin Latches, even though you never have a fire-panic in the building.

And if you **should** have a fire-panic, they are of course vitally necessary, for—once the inmates reach the doors—Von Duprin latches make safe exit certain.

Let us send you Catalog 12-C, containing complete details; or see "Sweet's," pages 1056-1061.



VONNEGUT HARDWARE CO.
Indianapolis, Ind.

*Academy High School,
Erie, Pennsylvania.
Wm. B. Ittner,
St. Louis,
Architect.*





Ninety-five Miessner Pianos are now in use in the Schools of Chicago, Ill.

Making Music a Study—Not Just a “Course”

What wasted power results from the use of a large upright piano in the schoolroom! And what an absence of those qualities which constitute a forceful presentation! Personality of the teacher plays so small a part, that close, intimate contact, so necessary to progress, can never be secured.

New methods in teaching may come and go, but the fundamental factor of all instruction—**personality**—will never change. More and more, teachers and superintendents are realizing this. Almost every day marks the beginning of real efficiency in some school system—the discarding of ordinary uprights and the introduction of the one practical school piano—

The MIESSNER

“The Little Piano with the Big Tone”

Music is more than a “course” when a Miessner is used. The hour is full of life and spirit. Over the top of the Miessner you see every pupil in the room as you play. The children respond to

such “personal” instruction—a love for good music is developed which could never be secured with a large, bulky, piano.

**Only Half Usual Size, Yet Full-Toned
as a Grand**

The Miessner stands only 3 feet, 7 inches high. But the small size of this marvelous piano is not all that makes it ideal for schoolroom use. There is **tone**—rich, full and musical—as lasting as the instrument itself. Every note sounds with a quality of tone which rivals that of a small grand piano. There are three strings for each treble note, bass strings are copper wound; keyboard is full seven octaves, keys full size.

**10 Days’ Free Trial—
Reduced Price to Schools**

Try a Miessner in your own schoolroom for 10 days, free. You send no money—just ask us to ship you one of these marvelous instruments. This plan enables you to demonstrate to your own satisfaction your greater teaching possibilities with the Miessner. Besides, with all its exclusive advantages, this piano will cost you even less than the ordinary upright because of our special price to schools.

Write Today for Catalog and Special Price to Schools

THE JACKSON PIANO CO.

122 Reed St., Milwaukee, Wis.

Miessner Pianos are also Distributed by
the Miessner-Jackson Co.,
228 Third St., Milwaukee, Wis.



Two Small Boys can move it Easily

CLIP THIS COUPON AND MAIL TODAY

Jackson Piano Co., 124 Reed St., Milwaukee, Wis.

Send me the illustrated MIESSNER catalog, complete details of your 10 Day Trial Offer, and Special Price to Schools.
(SBJ 2)

Name

School

Position

City.....

State.....

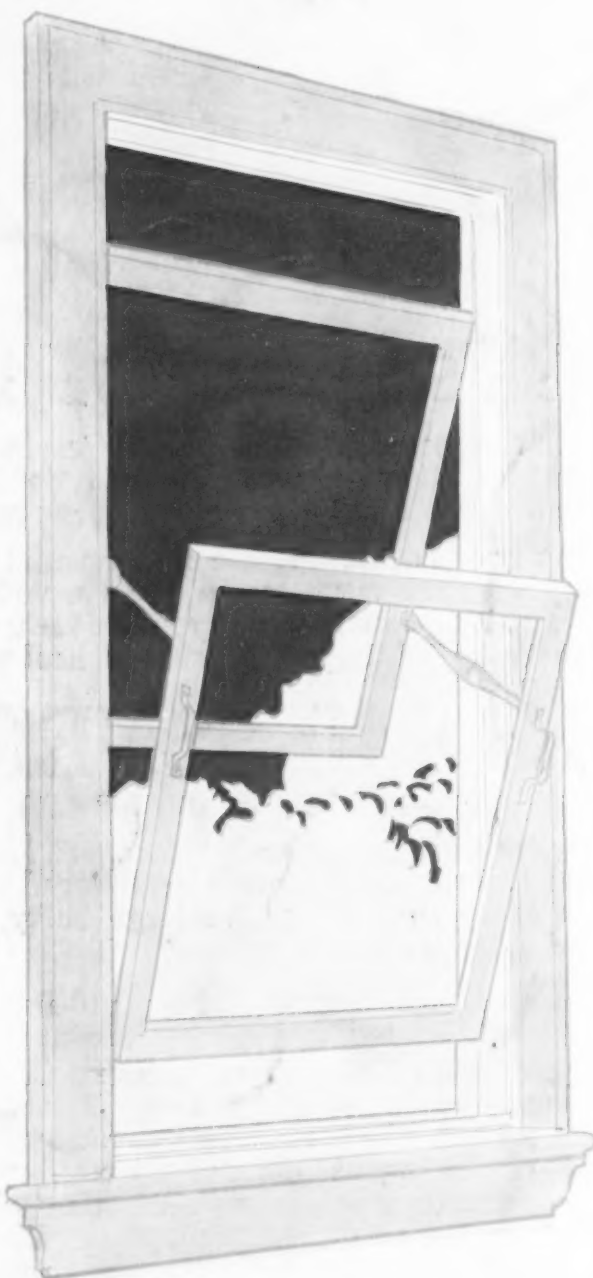
What Is More Important than LIGHT and
FRESH AIR in the School Room?

"AUSTRALIZE"

*Your New School
and*

PROVIDE
*A Perfect System
of
Ventilation
with
Absolute Control
of
Light
and
Reduce the Cost
of
Construction*

*The best proof of their
practical value is in
the universal satisfac-
tion they are giving in
scores of schools.*



ELIMINATE
*Weights
Weight Boxes
Wide Mullions
Chains
Pulleys
Sash Sockets
Cleaner Bolts
Adjustable Screws
Practically All
Interior
Window Trim
and All
Window Trouble*

Write for School Catalogue which gives full particulars

AUSTRAL WINDOW CO.

101 Park Ave., New York City